

South Carolina Standard Setting Study 4: Linking Study



Submitted to:

South Carolina Education Oversight Committee

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Part I: Study Procedures and Results

Computerized Assessments and Learning

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The following identifies the revised scope of work for Study 4 analyses in the South Carolina Standard Setting proposal received from Data Recognition Corporation in June 2009. The goal of these analyses was to provide evidence that would inform decisions on the appropriateness of linking 2009 PASS score performance to prior years' PACT test score performance. The following represents a number of analyses carried out on diverse subjects (reading and mathematics) at distinct grades involving tens of thousands of students test score records. The presentation of methods and findings follows.

Two sets of data were received to serve as the basis for the analyses. One set consisted of item response reading data for 51,769 grade 6 students from the spring 2009 PASS reading test administration. The other data set contained item response data for 51,636 students from the grade 7 PASS mathematics test administered in spring 2009. Of the 40 grade 6 PASS reading items for which response data were provided, 19 were identified as items "linked" to prior years' administrations of the PACT tests. For the grade 7 mathematics PASS data, item responses were provided for 61 items, 27 of which were identified as "linked" to prior years' administrations of the PACT tests. Item parameter values estimated from a Winsteps calibration of the 2009 PASS data also were provided.

For the grade 6 reading data, the following analyses and calculations were completed.

- Estimate ability based on the 19 PACT linked items via Winsteps calibration anchoring on the 2009 PASS item parameters.
- Estimate ability based on the 21 non-PACT linked items via Winsteps calibration anchoring on the 2009 PASS item parameters.
- Calculate reliability (Cronbach's alpha) of the testlet made up of the 19 PACT linked items.
- Calculate reliability (Cronbach's alpha) of the testlet made up of the 21 non-PACT linked items.
- Correlate the two sets of ability estimates
- Calculate the disattenuated correlation.

For the grade 7 mathematics data, similar analyses and calculations were completed based on the 27 PACT linked items and 34 non-PACT linked items.

Results

Grade 6 Reading Data

Reliability estimates were .76 for both the 19 linked items and the 21 non-linked items. The uncorrected correlation between student estimated abilities based separately on the linked and non-linked items was .710. The disattenuated correlation is .934. Also noted is that the correlation between the 2008 and 2009 item parameters for the 19 linked (anchor) items was .936. The mean location change in the item parameters from 2008 to 2009 was approximately .65 units.

Grade 7 Mathematics Data

Reliability estimates were .80 for the 27 linked items and .86 for the 34 non-linked items. The uncorrected correlation between student estimated abilities based separately on the linked and non-linked items was .822. The disattenuated correlation is .991. The correlation between the 2008 and 2009 item parameters for the 27 linked (anchor) items was .979. The mean location change in the item parameters from 2008 to 2009 was approximately .18 units.

Conclusion

Findings were representative for the populations studied. We note that the disattenuated correlation coefficient values are quite high indicating that a high degree of overlap is estimated between the true score performance based on the linked and non-linked items.

Of importance in drawing a conclusion is the degree to which PACT and PASS are measures of the same or very similar constructs. Our understanding is that moving from PACT to PASS, there was not a major or even minor change in measured or sampled indicators, but only a shift in name and potentially cutscores. As such, with no changes in the substance of the tests, they are indeed equivalent.

If this is the case, i.e., little or no change across years in the content or sampling methodology for inclusion of items on test forms, then the current results would support the appropriateness, that is the inherent validity, of linking the 2009 PASS scores to 2008 PACT scores.

Part II: Study Conversion Tables

Data Recognition Corporation

December 2009

Given the findings above, namely that it is deemed appropriate to link 2009 PASS to 2008 PACT, Data Recognition Corporation (DRC) generated conversion tables to provide an association from the PASS scale to the PACT scale. While these conversion tables used data from the 2008 PACT and the 2009 PASS administrations, respectively, the interpretation of scores from one scale to the other may be made regardless of the year, within the normal limitations of changes over time and measurement error. Following is a description of the process that DRC utilized in generating these conversion tables.

According to the study design, 2009 PASS item level data were to be calibrated with the Rasch model in two ways - unanchored and anchored to PACT. The purpose of the unanchored calibration was to establish the PASS scale that was to be used in the Bookmarking study. The purpose of the anchored calibration was to link 2009 PASS to PACT in order to produce PACT scale scores.

Unanchored calibrations were performed by DRC. The SCDE provided DRC with anchored calibrations. These calibrations were performed by Pearson using predetermined sets of anchor items.

DRC used the anchored calibrations from Pearson to produce a PACT scale score for each possible raw score. For Reading & Research and Mathematics, equipercentile equating was performed to link the Rasch ability provided by Pearson to the 3-PL metric where PACT cut scores were set in 1999. Then the PACT multiplicative and additive constants were applied to the 3-PL ability to produce a PACT scale score. For Science and Social Studies the PACT multiplicative and additive constants were applied directly to the Rasch ability provided by Pearson to produce a PACT scale score. No equipercentile equating was necessary because the cut scores for these subjects were set in the Rasch metric, not 3-PL.

The tables at the end of this section contain the conversions between 2009 PASS raw scores, PASS scale scores, and PACT scale scores. Each table contains the following fields

- Grade
- Subject
- PASS raw score
- PASS Rasch ability – from unanchored calibration
- PASS scale score – established upon adoption of the revised cut scores in October of 2009
- PASS frequency – number of students scoring each raw score on the 2009 PASS
- PACT Rasch ability – from anchored calibration
- PACT 3-PL ability – ability after equipercentile equating. Not applicable for Science and Social Studies
- PACT scale score

Grade 3 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Read & Res	0	-5.320	375	0	-5.248	-2.773	253
3	Read & Res	1	-4.068	432	4	-3.995	-2.709	254
3	Read & Res	2	-3.306	466	7	-3.233	-2.540	257
3	Read & Res	3	-2.832	488	16	-2.760	-2.346	260
3	Read & Res	4	-2.477	504	47	-2.405	-2.093	264
3	Read & Res	5	-2.186	517	148	-2.114	-1.804	269
3	Read & Res	6	-1.936	528	321	-1.865	-1.463	275
3	Read & Res	7	-1.714	538	513	-1.644	-1.242	278
3	Read & Res	8	-1.512	547	738	-1.444	-1.044	282
3	Read & Res	9	-1.326	556	986	-1.259	-0.877	284
3	Read & Res	10	-1.152	564	1199	-1.087	-0.723	287
3	Read & Res	11	-0.987	571	1421	-0.924	-0.592	289
3	Read & Res	12	-0.830	578	1610	-0.768	-0.466	291
3	Read & Res	13	-0.679	585	1737	-0.619	-0.350	293
3	Read & Res	14	-0.532	591	1878	-0.474	-0.239	295
3	Read & Res	15	-0.390	598	2078	-0.333	-0.129	297
3	Read & Res	16	-0.250	604	2203	-0.194	-0.023	298
3	Read & Res	17	-0.112	610	2252	-0.058	0.084	300
3	Read & Res	18	0.025	616	2459	0.078	0.184	302
3	Read & Res	19	0.162	622	2453	0.213	0.293	304
3	Read & Res	20	0.298	628	2465	0.348	0.396	305
3	Read & Res	21	0.436	635	2649	0.485	0.501	307
3	Read & Res	22	0.576	641	2781	0.623	0.606	309
3	Read & Res	23	0.718	647	2607	0.765	0.717	311
3	Read & Res	24	0.864	654	2764	0.910	0.824	312
3	Read & Res	25	1.015	661	2766	1.061	0.938	314
3	Read & Res	26	1.173	668	2707	1.218	1.058	316
3	Read & Res	27	1.339	675	2556	1.384	1.199	319
3	Read & Res	28	1.516	683	2380	1.562	1.338	321
3	Read & Res	29	1.708	692	2285	1.753	1.495	324
3	Read & Res	30	1.919	702	1926	1.965	1.667	326
3	Read & Res	31	2.157	712	1675	2.204	1.859	330
3	Read & Res	32	2.435	725	1308	2.483	2.067	333
3	Read & Res	33	2.777	741	908	2.827	2.306	337
3	Read & Res	34	3.236	761	562	3.287	2.618	342
3	Read & Res	35	3.982	795	245	4.035	2.937	347

Grade 3 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Read & Res	36	5.222	851	63	5.278	3.125	351

Grade 4 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Read & Res	0	-5.230	385	2	-5.920	-3.210	345
4	Read & Res	1	-3.985	433	1	-4.675	-3.180	346
4	Read & Res	2	-3.233	462	4	-3.922	-3.017	349
4	Read & Res	3	-2.768	480	13	-3.457	-2.863	351
4	Read & Res	4	-2.420	494	24	-3.109	-2.711	354
4	Read & Res	5	-2.136	505	62	-2.825	-2.483	357
4	Read & Res	6	-1.893	515	135	-2.581	-2.223	362
4	Read & Res	7	-1.677	523	195	-2.365	-1.962	366
4	Read & Res	8	-1.480	531	315	-2.169	-1.720	370
4	Read & Res	9	-1.299	538	438	-1.987	-1.559	373
4	Read & Res	10	-1.129	544	552	-1.817	-1.393	375
4	Read & Res	11	-0.969	551	686	-1.657	-1.238	378
4	Read & Res	12	-0.815	556	860	-1.503	-1.085	381
4	Read & Res	13	-0.667	562	1069	-1.355	-0.953	383
4	Read & Res	14	-0.524	568	1147	-1.212	-0.822	385
4	Read & Res	15	-0.385	573	1322	-1.072	-0.701	387
4	Read & Res	16	-0.248	579	1486	-0.935	-0.581	389
4	Read & Res	17	-0.113	584	1636	-0.799	-0.474	391
4	Read & Res	18	0.021	589	1779	-0.665	-0.366	393
4	Read & Res	19	0.155	594	1815	-0.531	-0.255	394
4	Read & Res	20	0.289	600	1963	-0.397	-0.151	396
4	Read & Res	21	0.423	605	2054	-0.262	-0.047	398
4	Read & Res	22	0.560	610	2137	-0.126	0.057	400
4	Read & Res	23	0.699	616	2208	0.014	0.162	401
4	Read & Res	24	0.842	621	2229	0.157	0.272	403
4	Read & Res	25	0.990	627	2378	0.305	0.384	405
4	Read & Res	26	1.145	633	2505	0.460	0.498	407
4	Read & Res	27	1.308	639	2574	0.623	0.622	409
4	Read & Res	28	1.482	646	2694	0.797	0.750	411
4	Read & Res	29	1.670	653	2847	0.985	0.894	413
4	Read & Res	30	1.877	661	3008	1.192	1.051	416
4	Read & Res	31	2.111	669	3153	1.426	1.230	419
4	Read & Res	32	2.386	681	2962	1.700	1.440	423
4	Read & Res	33	2.723	694	2691	2.038	1.695	427
4	Read & Res	34	3.178	712	2185	2.492	1.982	432
4	Read & Res	35	3.919	741	1372	3.233	2.355	438

Grade 4 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Read & Res	36	5.157	789	602	4.470	2.664	443

Grade 5 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Read & Res	0	-5.316	338	0	-5.920	-3.170	445
5	Read & Res	1	-4.072	397	1	-4.673	-3.126	446
5	Read & Res	2	-3.323	433	0	-3.920	-3.058	447
5	Read & Res	3	-2.861	455	3	-3.454	-2.912	450
5	Read & Res	4	-2.517	472	11	-3.106	-2.755	452
5	Read & Res	5	-2.237	486	39	-2.823	-2.491	457
5	Read & Res	6	-1.998	497	89	-2.580	-2.173	462
5	Read & Res	7	-1.786	507	136	-2.366	-1.954	466
5	Read & Res	8	-1.594	517	243	-2.171	-1.750	469
5	Read & Res	9	-1.417	525	339	-1.992	-1.578	472
5	Read & Res	10	-1.252	533	468	-1.825	-1.414	475
5	Read & Res	11	-1.095	541	550	-1.667	-1.260	477
5	Read & Res	12	-0.946	548	603	-1.516	-1.111	480
5	Read & Res	13	-0.803	555	749	-1.371	-0.971	482
5	Read & Res	14	-0.664	562	836	-1.231	-0.843	484
5	Read & Res	15	-0.528	568	977	-1.094	-0.722	486
5	Read & Res	16	-0.395	575	1093	-0.960	-0.598	488
5	Read & Res	17	-0.264	581	1336	-0.827	-0.487	490
5	Read & Res	18	-0.135	587	1380	-0.697	-0.374	492
5	Read & Res	19	-0.005	593	1581	-0.566	-0.267	494
5	Read & Res	20	0.124	600	1757	-0.436	-0.166	496
5	Read & Res	21	0.254	606	2072	-0.305	-0.063	497
5	Read & Res	22	0.385	612	2313	-0.173	0.037	499
5	Read & Res	23	0.518	618	2426	-0.039	0.143	501
5	Read & Res	24	0.654	625	2677	0.097	0.246	503
5	Read & Res	25	0.794	632	2785	0.238	0.348	504
5	Read & Res	26	0.938	639	3020	0.383	0.454	506
5	Read & Res	27	1.088	646	3134	0.533	0.562	508
5	Read & Res	28	1.245	653	3285	0.691	0.681	510
5	Read & Res	29	1.412	661	3240	0.858	0.802	512
5	Read & Res	30	1.591	670	3170	1.037	0.934	514
5	Read & Res	31	1.784	678	3061	1.232	1.065	516
5	Read & Res	32	1.999	689	2739	1.446	1.219	519
5	Read & Res	33	2.241	701	2366	1.689	1.403	522
5	Read & Res	34	2.525	715	1825	1.974	1.626	526
5	Read & Res	35	2.875	731	1134	2.323	1.872	530

Grade 5 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Read & Res	36	3.343	754	613	2.792	2.190	535
5	Read & Res	37	4.101	790	233	3.550	2.637	543
5	Read & Res	38	5.352	849	52	4.801	2.904	547

**Grade 6 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table**

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Read & Res	0	-5.306	333	0	-5.997	-3.549	542
6	Read & Res	1	-4.066	391	2	-4.758	-3.499	542
6	Read & Res	2	-3.322	426	0	-4.014	-3.388	544
6	Read & Res	3	-2.866	447	6	-3.558	-3.304	546
6	Read & Res	4	-2.528	463	12	-3.219	-3.242	547
6	Read & Res	5	-2.254	476	37	-2.944	-3.151	548
6	Read & Res	6	-2.021	487	80	-2.710	-2.958	551
6	Read & Res	7	-1.815	497	142	-2.504	-2.765	554
6	Read & Res	8	-1.630	505	212	-2.317	-2.441	560
6	Read & Res	9	-1.460	513	317	-2.145	-2.215	563
6	Read & Res	10	-1.301	521	367	-1.985	-2.027	566
6	Read & Res	11	-1.152	528	493	-1.834	-1.853	569
6	Read & Res	12	-1.009	535	609	-1.690	-1.685	572
6	Read & Res	13	-0.873	541	679	-1.552	-1.525	575
6	Read & Res	14	-0.742	547	735	-1.418	-1.392	577
6	Read & Res	15	-0.614	553	860	-1.288	-1.258	579
6	Read & Res	16	-0.489	559	1027	-1.161	-1.131	581
6	Read & Res	17	-0.366	565	1106	-1.036	-1.002	583
6	Read & Res	18	-0.245	571	1288	-0.913	-0.868	585
6	Read & Res	19	-0.124	577	1428	-0.790	-0.739	588
6	Read & Res	20	-0.004	582	1568	-0.668	-0.621	589
6	Read & Res	21	0.116	588	1742	-0.546	-0.491	592
6	Read & Res	22	0.236	594	1883	-0.423	-0.374	593
6	Read & Res	23	0.358	600	1905	-0.299	-0.249	596
6	Read & Res	24	0.482	605	2237	-0.174	-0.127	598
6	Read & Res	25	0.608	611	2432	-0.046	0.006	600
6	Read & Res	26	0.737	617	2656	0.085	0.144	602
6	Read & Res	27	0.869	624	2775	0.220	0.274	604
6	Read & Res	28	1.007	630	2766	0.359	0.418	606
6	Read & Res	29	1.151	637	2885	0.504	0.570	609
6	Read & Res	30	1.302	644	2886	0.657	0.726	611
6	Read & Res	31	1.462	652	3020	0.818	0.883	614
6	Read & Res	32	1.633	660	2833	0.991	1.055	617
6	Read & Res	33	1.820	668	2632	1.179	1.245	620
6	Read & Res	34	2.027	678	2362	1.387	1.449	623
6	Read & Res	35	2.261	689	2031	1.622	1.683	627

Grade 6 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Read & Res	36	2.536	702	1531	1.897	1.936	631
6	Read & Res	37	2.874	718	1119	2.236	2.205	636
6	Read & Res	38	3.330	739	658	2.692	2.552	641
6	Read & Res	39	4.073	774	299	3.435	3.020	649
6	Read & Res	40	5.311	832	72	4.674	3.200	652

Grade 7 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Read & Res	0	-5.351	330	1	-6.172	-3.667	639
7	Read & Res	1	-4.116	387	0	-4.937	-3.535	641
7	Read & Res	2	-3.379	421	1	-4.201	-3.374	644
7	Read & Res	3	-2.931	442	0	-3.753	-3.299	645
7	Read & Res	4	-2.601	457	7	-3.423	-3.134	648
7	Read & Res	5	-2.336	470	14	-3.158	-3.006	650
7	Read & Res	6	-2.111	480	38	-2.933	-2.837	652
7	Read & Res	7	-1.914	489	68	-2.737	-2.644	656
7	Read & Res	8	-1.738	497	134	-2.561	-2.418	659
7	Read & Res	9	-1.577	505	208	-2.400	-2.213	663
7	Read & Res	10	-1.428	511	319	-2.251	-2.033	665
7	Read & Res	11	-1.289	518	409	-2.112	-1.891	668
7	Read & Res	12	-1.157	524	537	-1.980	-1.755	670
7	Read & Res	13	-1.031	530	623	-1.855	-1.641	672
7	Read & Res	14	-0.911	535	701	-1.734	-1.524	674
7	Read & Res	15	-0.794	541	794	-1.618	-1.403	676
7	Read & Res	16	-0.682	546	796	-1.505	-1.289	677
7	Read & Res	17	-0.571	551	857	-1.395	-1.183	679
7	Read & Res	18	-0.464	556	922	-1.287	-1.078	681
7	Read & Res	19	-0.357	561	966	-1.181	-0.981	682
7	Read & Res	20	-0.253	566	1029	-1.076	-0.870	684
7	Read & Res	21	-0.149	571	1029	-0.972	-0.766	686
7	Read & Res	22	-0.046	575	1187	-0.868	-0.666	688
7	Read & Res	23	0.057	580	1236	-0.765	-0.568	689
7	Read & Res	24	0.161	585	1334	-0.661	-0.475	691
7	Read & Res	25	0.264	590	1347	-0.557	-0.365	692
7	Read & Res	26	0.369	595	1511	-0.451	-0.274	694
7	Read & Res	27	0.475	600	1655	-0.345	-0.169	696
7	Read & Res	28	0.582	605	1710	-0.237	-0.068	697
7	Read & Res	29	0.692	610	1861	-0.126	0.032	699
7	Read & Res	30	0.804	615	2068	-0.013	0.147	701
7	Read & Res	31	0.920	620	2110	0.104	0.248	702
7	Read & Res	32	1.039	626	2309	0.225	0.356	704
7	Read & Res	33	1.164	632	2527	0.350	0.476	706
7	Read & Res	34	1.295	638	2637	0.482	0.589	708
7	Read & Res	35	1.433	643	2730	0.621	0.710	710

Grade 7 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Read & Res	36	1.580	651	2802	0.770	0.849	712
7	Read & Res	37	1.738	658	2639	0.930	0.986	714
7	Read & Res	38	1.912	665	2625	1.105	1.153	717
7	Read & Res	39	2.106	675	2369	1.300	1.322	720
7	Read & Res	40	2.327	686	2016	1.522	1.512	723
7	Read & Res	41	2.588	698	1527	1.785	1.746	727
7	Read & Res	42	2.913	713	1005	2.111	2.017	731
7	Read & Res	43	3.355	733	523	2.554	2.355	736
7	Read & Res	44	4.084	767	245	3.285	2.777	743
7	Read & Res	45	5.312	824	39	4.515	3.145	749

Grade 8 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Read & Res	0	-5.568	306	1	-6.223	-3.607	742
8	Read & Res	1	-4.335	367	0	-4.992	-3.567	743
8	Read & Res	2	-3.601	403	1	-4.260	-3.526	743
8	Read & Res	3	-3.154	425	0	-3.816	-3.502	744
8	Read & Res	4	-2.825	441	5	-3.490	-3.447	744
8	Read & Res	5	-2.561	454	6	-3.228	-3.347	746
8	Read & Res	6	-2.338	465	14	-3.006	-3.217	748
8	Read & Res	7	-2.142	475	41	-2.812	-3.010	751
8	Read & Res	8	-1.967	484	66	-2.638	-2.739	756
8	Read & Res	9	-1.807	492	108	-2.480	-2.522	759
8	Read & Res	10	-1.660	499	178	-2.334	-2.345	762
8	Read & Res	11	-1.521	506	249	-2.197	-2.172	765
8	Read & Res	12	-1.391	512	308	-2.067	-2.005	767
8	Read & Res	13	-1.267	518	360	-1.944	-1.846	770
8	Read & Res	14	-1.149	524	392	-1.827	-1.701	772
8	Read & Res	15	-1.035	530	479	-1.713	-1.569	774
8	Read & Res	16	-0.924	535	626	-1.603	-1.447	776
8	Read & Res	17	-0.817	540	587	-1.497	-1.325	778
8	Read & Res	18	-0.712	546	740	-1.392	-1.210	780
8	Read & Res	19	-0.610	551	765	-1.290	-1.098	782
8	Read & Res	20	-0.509	556	864	-1.190	-0.993	783
8	Read & Res	21	-0.409	561	1006	-1.091	-0.894	785
8	Read & Res	22	-0.311	566	1037	-0.992	-0.800	787
8	Read & Res	23	-0.213	570	1151	-0.895	-0.705	788
8	Read & Res	24	-0.115	575	1269	-0.798	-0.613	790
8	Read & Res	25	-0.018	580	1419	-0.701	-0.526	791
8	Read & Res	26	0.079	585	1570	-0.603	-0.444	792
8	Read & Res	27	0.177	590	1705	-0.506	-0.353	794
8	Read & Res	28	0.275	595	1823	-0.407	-0.264	795
8	Read & Res	29	0.375	600	1966	-0.308	-0.172	797
8	Read & Res	30	0.476	605	1963	-0.207	-0.081	798
8	Read & Res	31	0.578	610	2154	-0.105	0.018	800
8	Read & Res	32	0.682	615	2239	-0.001	0.112	801
8	Read & Res	33	0.789	620	2289	0.106	0.202	802
8	Read & Res	34	0.899	626	2344	0.216	0.301	804
8	Read & Res	35	1.012	631	2345	0.329	0.403	806

Grade 8 Reading and Research
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Read & Res	36	1.129	637	2443	0.447	0.501	807
8	Read & Res	37	1.251	643	2408	0.569	0.610	809
8	Read & Res	38	1.378	649	2253	0.697	0.722	811
8	Read & Res	39	1.513	656	2185	0.832	0.841	813
8	Read & Res	40	1.656	663	2086	0.976	0.971	815
8	Read & Res	41	1.809	671	1853	1.129	1.100	817
8	Read & Res	42	1.975	679	1591	1.296	1.239	819
8	Read & Res	43	2.157	688	1428	1.479	1.391	821
8	Read & Res	44	2.361	698	1192	1.684	1.559	824
8	Read & Res	45	2.593	710	883	1.918	1.737	827
8	Read & Res	46	2.868	724	640	2.194	1.934	830
8	Read & Res	47	3.210	741	422	2.537	2.183	834
8	Read & Res	48	3.672	764	217	3.000	2.465	838
8	Read & Res	49	4.424	801	87	3.754	2.845	845
8	Read & Res	50	5.672	863	17	5.002	3.063	848

Grade 3 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Math	0	-5.444	338	2	-5.957	-2.294	260
3	Math	1	-4.216	394	0	-4.727	-2.270	260
3	Math	2	-3.489	427	1	-3.997	-2.247	261
3	Math	3	-3.049	447	0	-3.554	-2.194	262
3	Math	4	-2.726	462	3	-3.229	-2.147	262
3	Math	5	-2.468	474	5	-2.968	-2.098	263
3	Math	6	-2.249	484	7	-2.748	-2.083	263
3	Math	7	-2.059	493	33	-2.556	-1.980	265
3	Math	8	-1.888	500	84	-2.383	-1.948	266
3	Math	9	-1.733	507	94	-2.227	-1.841	267
3	Math	10	-1.590	514	157	-2.082	-1.713	269
3	Math	11	-1.456	520	238	-1.947	-1.673	270
3	Math	12	-1.330	526	361	-1.819	-1.531	272
3	Math	13	-1.210	531	496	-1.698	-1.410	274
3	Math	14	-1.095	537	622	-1.582	-1.339	276
3	Math	15	-0.985	542	725	-1.471	-1.207	278
3	Math	16	-0.878	547	779	-1.363	-1.065	280
3	Math	17	-0.775	551	880	-1.259	-0.988	281
3	Math	18	-0.674	556	1020	-1.157	-0.889	283
3	Math	19	-0.575	561	1089	-1.057	-0.761	285
3	Math	20	-0.478	565	1232	-0.959	-0.634	287
3	Math	21	-0.382	569	1254	-0.863	-0.554	288
3	Math	22	-0.287	574	1370	-0.767	-0.470	290
3	Math	23	-0.193	578	1378	-0.673	-0.377	291
3	Math	24	-0.100	582	1480	-0.579	-0.276	293
3	Math	25	-0.006	587	1489	-0.485	-0.172	294
3	Math	26	0.087	591	1609	-0.391	-0.072	296
3	Math	27	0.181	595	1713	-0.297	0.012	297
3	Math	28	0.275	600	1727	-0.203	0.100	299
3	Math	29	0.370	604	1833	-0.107	0.187	300
3	Math	30	0.466	608	1831	-0.011	0.261	301
3	Math	31	0.564	613	1951	0.088	0.347	303
3	Math	32	0.663	617	1878	0.187	0.435	304
3	Math	33	0.765	622	2007	0.289	0.527	306
3	Math	34	0.869	627	2054	0.394	0.624	307
3	Math	35	0.977	632	2088	0.502	0.709	309

Grade 3 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Math	36	1.088	637	2129	0.614	0.815	310
3	Math	37	1.204	641	2096	0.730	0.914	312
3	Math	38	1.326	647	2012	0.851	1.018	314
3	Math	39	1.454	653	2099	0.979	1.115	315
3	Math	40	1.589	659	2012	1.115	1.217	317
3	Math	41	1.735	665	1954	1.261	1.321	319
3	Math	42	1.892	673	1890	1.418	1.430	320
3	Math	43	2.065	681	1679	1.591	1.568	323
3	Math	44	2.258	690	1425	1.785	1.717	325
3	Math	45	2.480	700	1275	2.007	1.887	328
3	Math	46	2.742	712	1033	2.269	2.034	330
3	Math	47	3.068	727	811	2.596	2.189	333
3	Math	48	3.513	747	546	3.040	2.368	335
3	Math	49	4.245	780	256	3.772	2.670	340
3	Math	50	5.476	836	69	5.004	2.832	343

Grade 4 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Math	0	-5.563	356	0	-5.593	-2.870	351
4	Math	1	-4.339	411	0	-4.368	-2.853	351
4	Math	2	-3.617	444	0	-3.645	-2.816	351
4	Math	3	-3.182	463	1	-3.209	-2.720	353
4	Math	4	-2.865	478	1	-2.891	-2.585	356
4	Math	5	-2.611	489	4	-2.636	-2.435	358
4	Math	6	-2.398	499	9	-2.422	-2.360	359
4	Math	7	-2.213	507	17	-2.236	-2.226	362
4	Math	8	-2.047	515	40	-2.069	-2.063	365
4	Math	9	-1.897	521	60	-1.918	-1.908	367
4	Math	10	-1.759	528	124	-1.779	-1.803	369
4	Math	11	-1.630	534	199	-1.649	-1.679	371
4	Math	12	-1.508	539	297	-1.527	-1.511	374
4	Math	13	-1.394	544	394	-1.412	-1.396	376
4	Math	14	-1.284	549	480	-1.301	-1.309	378
4	Math	15	-1.179	554	583	-1.195	-1.198	380
4	Math	16	-1.078	559	667	-1.093	-1.059	382
4	Math	17	-0.980	563	781	-0.994	-0.966	384
4	Math	18	-0.885	567	854	-0.898	-0.883	385
4	Math	19	-0.792	572	981	-0.804	-0.775	387
4	Math	20	-0.700	576	1002	-0.713	-0.651	389
4	Math	21	-0.611	579	1063	-0.622	-0.548	391
4	Math	22	-0.523	584	1138	-0.534	-0.464	393
4	Math	23	-0.436	588	1203	-0.446	-0.382	394
4	Math	24	-0.350	592	1274	-0.359	-0.286	396
4	Math	25	-0.265	596	1325	-0.273	-0.186	397
4	Math	26	-0.180	600	1402	-0.187	-0.104	399
4	Math	27	-0.096	603	1455	-0.102	-0.028	400
4	Math	28	-0.011	607	1461	-0.017	0.024	401
4	Math	29	0.073	611	1616	0.068	0.112	403
4	Math	30	0.158	615	1572	0.154	0.202	404
4	Math	31	0.243	619	1560	0.240	0.284	406
4	Math	32	0.329	623	1683	0.326	0.363	407
4	Math	33	0.415	627	1687	0.414	0.444	408
4	Math	34	0.503	631	1657	0.502	0.526	410
4	Math	35	0.592	635	1654	0.592	0.603	411

Grade 4 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Math	36	0.682	639	1703	0.683	0.684	413
4	Math	37	0.774	643	1725	0.776	0.758	414
4	Math	38	0.869	647	1623	0.872	0.830	415
4	Math	39	0.966	652	1651	0.970	0.923	417
4	Math	40	1.066	656	1651	1.070	0.997	418
4	Math	41	1.169	661	1640	1.174	1.083	420
4	Math	42	1.276	666	1598	1.283	1.176	421
4	Math	43	1.388	671	1531	1.395	1.263	423
4	Math	44	1.505	676	1533	1.514	1.357	424
4	Math	45	1.630	682	1439	1.639	1.450	426
4	Math	46	1.762	688	1452	1.772	1.546	428
4	Math	47	1.904	694	1349	1.915	1.647	429
4	Math	48	2.058	701	1291	2.070	1.757	431
4	Math	49	2.227	709	1152	2.240	1.853	433
4	Math	50	2.418	718	980	2.431	1.969	435
4	Math	51	2.636	727	860	2.650	2.095	437
4	Math	52	2.895	739	691	2.910	2.228	439
4	Math	53	3.218	754	518	3.234	2.388	442
4	Math	54	3.660	774	319	3.677	2.578	446
4	Math	55	4.389	807	170	4.407	2.794	449
4	Math	56	5.618	862	41	5.636	2.881	451

Grade 5 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Math	0	N/A	300	0	-10.064	-2.497	458
5	Math	1	-5.580	300	0	-6.766	-2.497	458
5	Math	2	-4.350	409	0	-4.205	-2.482	458
5	Math	3	-3.621	443	0	-3.481	-2.465	458
5	Math	4	-3.179	464	0	-3.040	-2.430	459
5	Math	5	-2.855	479	2	-2.716	-2.403	459
5	Math	6	-2.596	491	1	-2.457	-2.347	460
5	Math	7	-2.377	501	11	-2.238	-2.238	462
5	Math	8	-2.186	510	30	-2.047	-2.106	465
5	Math	9	-2.016	518	75	-1.877	-1.937	468
5	Math	10	-1.862	525	126	-1.722	-1.819	470
5	Math	11	-1.720	532	231	-1.580	-1.696	472
5	Math	12	-1.588	538	341	-1.447	-1.585	474
5	Math	13	-1.463	544	496	-1.323	-1.451	476
5	Math	14	-1.346	550	627	-1.205	-1.303	479
5	Math	15	-1.234	555	808	-1.093	-1.151	481
5	Math	16	-1.127	560	924	-0.985	-1.026	484
5	Math	17	-1.023	565	989	-0.882	-0.892	486
5	Math	18	-0.924	570	1068	-0.782	-0.804	488
5	Math	19	-0.827	574	1191	-0.684	-0.699	489
5	Math	20	-0.732	578	1272	-0.590	-0.612	491
5	Math	21	-0.640	583	1321	-0.497	-0.518	493
5	Math	22	-0.550	587	1428	-0.406	-0.420	494
5	Math	23	-0.461	591	1363	-0.317	-0.328	496
5	Math	24	-0.374	595	1518	-0.229	-0.235	498
5	Math	25	-0.287	600	1564	-0.142	-0.153	499
5	Math	26	-0.201	604	1483	-0.056	-0.070	500
5	Math	27	-0.116	608	1580	0.029	0.015	502
5	Math	28	-0.031	612	1578	0.115	0.095	503
5	Math	29	0.054	616	1649	0.200	0.175	505
5	Math	30	0.138	620	1645	0.285	0.256	506
5	Math	31	0.223	624	1607	0.370	0.330	508
5	Math	32	0.309	628	1665	0.456	0.412	509
5	Math	33	0.395	632	1711	0.543	0.488	510
5	Math	34	0.482	636	1609	0.630	0.567	512
5	Math	35	0.570	640	1601	0.718	0.648	513

Grade 5 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Math	36	0.659	644	1603	0.808	0.725	514
5	Math	37	0.750	648	1633	0.900	0.808	516
5	Math	38	0.843	653	1503	0.993	0.883	517
5	Math	39	0.938	657	1480	1.089	0.971	519
5	Math	40	1.036	662	1508	1.188	1.053	520
5	Math	41	1.138	667	1419	1.289	1.139	522
5	Math	42	1.243	672	1410	1.395	1.225	523
5	Math	43	1.352	677	1298	1.505	1.320	525
5	Math	44	1.467	682	1276	1.620	1.412	527
5	Math	45	1.588	688	1237	1.742	1.510	528
5	Math	46	1.717	694	1146	1.872	1.611	530
5	Math	47	1.856	700	1022	2.011	1.706	532
5	Math	48	2.006	708	967	2.162	1.791	533
5	Math	49	2.172	715	834	2.328	1.881	535
5	Math	50	2.358	724	711	2.514	1.994	537
5	Math	51	2.571	734	565	2.728	2.140	539
5	Math	52	2.825	746	455	2.983	2.277	542
5	Math	53	3.143	761	353	3.302	2.394	544
5	Math	54	3.579	781	224	3.737	2.543	546
5	Math	55	4.301	815	124	4.461	2.773	551
5	Math	56	5.526	873	37	5.685	2.816	551

Grade 6 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Math	0	N/A	300	0	-10.101	-2.679	555
6	Math	1	-5.587	300	0	-6.872	-2.679	555
6	Math	2	-4.361	407	0	-4.378	-2.676	555
6	Math	3	-3.638	440	0	-3.660	-2.651	555
6	Math	4	-3.203	460	0	-3.224	-2.625	556
6	Math	5	-2.885	474	0	-2.906	-2.588	556
6	Math	6	-2.632	486	3	-2.652	-2.579	556
6	Math	7	-2.420	495	6	-2.439	-2.534	557
6	Math	8	-2.236	504	14	-2.255	-2.447	559
6	Math	9	-2.072	511	24	-2.090	-2.360	560
6	Math	10	-1.924	518	58	-1.942	-2.268	562
6	Math	11	-1.789	524	103	-1.806	-2.146	564
6	Math	12	-1.663	530	162	-1.680	-2.016	566
6	Math	13	-1.545	535	263	-1.561	-1.864	569
6	Math	14	-1.434	541	371	-1.450	-1.715	571
6	Math	15	-1.329	545	507	-1.344	-1.568	574
6	Math	16	-1.228	550	640	-1.243	-1.427	576
6	Math	17	-1.131	554	801	-1.146	-1.306	579
6	Math	18	-1.038	559	892	-1.053	-1.189	581
6	Math	19	-0.948	563	921	-0.962	-1.077	583
6	Math	20	-0.861	567	1011	-0.875	-0.965	585
6	Math	21	-0.776	571	1070	-0.789	-0.857	586
6	Math	22	-0.692	574	1149	-0.706	-0.758	588
6	Math	23	-0.611	578	1118	-0.624	-0.661	590
6	Math	24	-0.531	582	1130	-0.543	-0.572	591
6	Math	25	-0.452	585	1272	-0.464	-0.482	593
6	Math	26	-0.374	589	1263	-0.386	-0.400	594
6	Math	27	-0.297	593	1249	-0.309	-0.311	596
6	Math	28	-0.220	596	1257	-0.232	-0.219	598
6	Math	29	-0.145	600	1222	-0.156	-0.132	599
6	Math	30	-0.069	603	1296	-0.081	-0.048	600
6	Math	31	0.007	606	1386	-0.005	0.037	602
6	Math	32	0.082	610	1379	0.071	0.115	603
6	Math	33	0.157	613	1384	0.146	0.189	605
6	Math	34	0.233	617	1435	0.222	0.265	606
6	Math	35	0.309	620	1407	0.299	0.338	607

Grade 6 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Math	36	0.386	624	1398	0.376	0.410	608
6	Math	37	0.464	627	1472	0.453	0.487	610
6	Math	38	0.542	631	1417	0.532	0.559	611
6	Math	39	0.622	634	1383	0.612	0.634	612
6	Math	40	0.703	638	1342	0.693	0.712	614
6	Math	41	0.785	642	1347	0.775	0.778	615
6	Math	42	0.870	646	1391	0.860	0.853	616
6	Math	43	0.956	650	1328	0.947	0.928	617
6	Math	44	1.046	654	1343	1.036	1.003	619
6	Math	45	1.138	658	1285	1.128	1.080	620
6	Math	46	1.233	662	1302	1.224	1.167	622
6	Math	47	1.333	667	1242	1.323	1.237	623
6	Math	48	1.437	672	1254	1.428	1.318	624
6	Math	49	1.546	677	1252	1.537	1.393	626
6	Math	50	1.662	681	1135	1.654	1.489	627
6	Math	51	1.786	688	1127	1.778	1.589	629
6	Math	52	1.920	694	1050	1.911	1.689	631
6	Math	53	2.065	700	1029	2.057	1.785	632
6	Math	54	2.226	708	853	2.219	1.882	634
6	Math	55	2.408	716	763	2.400	2.004	636
6	Math	56	2.617	726	662	2.609	2.145	639
6	Math	57	2.866	737	598	2.859	2.334	642
6	Math	58	3.180	751	447	3.173	2.437	644
6	Math	59	3.612	771	253	3.605	2.625	647
6	Math	60	4.330	804	155	4.324	2.877	651
6	Math	61	5.552	859	51	5.546	3.072	655

Grade 7 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Math	0	-5.555	338	1	-5.373	-2.676	654
7	Math	1	-4.333	398	1	-4.151	-2.622	655
7	Math	2	-3.614	434	1	-3.432	-2.570	656
7	Math	3	-3.183	455	0	-3.001	-2.510	657
7	Math	4	-2.869	470	0	-2.687	-2.455	658
7	Math	5	-2.620	483	1	-2.437	-2.363	660
7	Math	6	-2.411	493	5	-2.228	-2.271	661
7	Math	7	-2.230	502	6	-2.047	-2.158	663
7	Math	8	-2.069	510	12	-1.886	-2.031	665
7	Math	9	-1.924	517	36	-1.741	-1.905	668
7	Math	10	-1.791	524	76	-1.608	-1.766	670
7	Math	11	-1.667	530	120	-1.484	-1.657	672
7	Math	12	-1.552	535	190	-1.369	-1.544	674
7	Math	13	-1.443	541	313	-1.260	-1.430	676
7	Math	14	-1.340	546	475	-1.156	-1.317	678
7	Math	15	-1.241	551	619	-1.057	-1.205	680
7	Math	16	-1.146	555	795	-0.963	-1.096	682
7	Math	17	-1.055	560	907	-0.871	-0.994	684
7	Math	18	-0.967	564	1035	-0.783	-0.887	686
7	Math	19	-0.881	569	1168	-0.697	-0.789	687
7	Math	20	-0.798	573	1215	-0.614	-0.687	689
7	Math	21	-0.716	577	1264	-0.532	-0.594	691
7	Math	22	-0.637	581	1410	-0.452	-0.502	692
7	Math	23	-0.558	584	1398	-0.374	-0.412	694
7	Math	24	-0.481	588	1482	-0.297	-0.329	695
7	Math	25	-0.405	592	1535	-0.220	-0.246	697
7	Math	26	-0.330	596	1613	-0.145	-0.162	698
7	Math	27	-0.255	600	1558	-0.071	-0.075	700
7	Math	28	-0.181	603	1667	0.004	0.001	701
7	Math	29	-0.108	607	1653	0.077	0.085	703
7	Math	30	-0.034	610	1544	0.151	0.161	704
7	Math	31	0.039	614	1597	0.224	0.240	705
7	Math	32	0.113	618	1600	0.298	0.322	707
7	Math	33	0.186	621	1545	0.371	0.396	708
7	Math	34	0.260	625	1577	0.445	0.475	710
7	Math	35	0.335	629	1442	0.520	0.552	711

Grade 7 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Math	36	0.410	632	1412	0.595	0.625	712
7	Math	37	0.485	636	1385	0.671	0.698	714
7	Math	38	0.562	640	1340	0.748	0.772	715
7	Math	39	0.640	644	1322	0.826	0.839	716
7	Math	40	0.720	648	1273	0.906	0.916	717
7	Math	41	0.801	651	1198	0.987	0.986	719
7	Math	42	0.884	656	1119	1.070	1.074	720
7	Math	43	0.969	660	1102	1.155	1.152	722
7	Math	44	1.057	664	1106	1.243	1.229	723
7	Math	45	1.148	669	1040	1.334	1.314	724
7	Math	46	1.242	673	990	1.428	1.384	726
7	Math	47	1.340	678	960	1.526	1.460	727
7	Math	48	1.443	683	950	1.629	1.548	729
7	Math	49	1.551	689	925	1.738	1.637	730
7	Math	50	1.666	694	852	1.852	1.719	732
7	Math	51	1.789	700	734	1.975	1.822	733
7	Math	52	1.921	707	691	2.108	1.928	735
7	Math	53	2.066	714	669	2.252	2.031	737
7	Math	54	2.226	722	600	2.413	2.145	739
7	Math	55	2.406	731	511	2.593	2.234	741
7	Math	56	2.614	741	479	2.801	2.351	743
7	Math	57	2.863	753	377	3.050	2.477	745
7	Math	58	3.176	769	282	3.363	2.734	749
7	Math	59	3.606	790	183	3.793	2.867	752
7	Math	60	4.324	826	120	4.511	3.002	754
7	Math	61	5.545	886	42	5.733	3.088	756

Grade 8 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Math	0	-5.554	356	0	-5.301	-2.897	755
8	Math	1	-4.333	413	1	-4.081	-2.833	756
8	Math	2	-3.616	447	2	-3.364	-2.792	756
8	Math	3	-3.187	467	0	-2.935	-2.698	758
8	Math	4	-2.875	482	1	-2.623	-2.642	759
8	Math	5	-2.628	494	4	-2.376	-2.543	761
8	Math	6	-2.421	503	11	-2.169	-2.418	763
8	Math	7	-2.242	512	22	-1.989	-2.227	766
8	Math	8	-2.083	519	43	-1.831	-2.072	769
8	Math	9	-1.940	526	102	-1.687	-1.938	771
8	Math	10	-1.809	532	177	-1.556	-1.773	774
8	Math	11	-1.687	538	319	-1.435	-1.617	776
8	Math	12	-1.574	543	469	-1.321	-1.492	778
8	Math	13	-1.467	548	631	-1.214	-1.372	780
8	Math	14	-1.366	553	877	-1.113	-1.247	783
8	Math	15	-1.269	558	1130	-1.016	-1.128	785
8	Math	16	-1.177	562	1344	-0.924	-1.020	786
8	Math	17	-1.088	566	1539	-0.835	-0.929	788
8	Math	18	-1.002	570	1530	-0.749	-0.838	789
8	Math	19	-0.918	574	1604	-0.665	-0.752	791
8	Math	20	-0.837	578	1601	-0.584	-0.666	792
8	Math	21	-0.758	582	1657	-0.505	-0.581	794
8	Math	22	-0.681	586	1626	-0.427	-0.504	795
8	Math	23	-0.605	589	1566	-0.351	-0.426	796
8	Math	24	-0.531	593	1570	-0.277	-0.349	798
8	Math	25	-0.458	596	1449	-0.203	-0.283	799
8	Math	26	-0.385	600	1447	-0.131	-0.216	800
8	Math	27	-0.313	603	1419	-0.059	-0.157	801
8	Math	28	-0.242	606	1347	0.013	-0.088	802
8	Math	29	-0.172	610	1276	0.084	-0.015	803
8	Math	30	-0.102	613	1334	0.154	0.050	805
8	Math	31	-0.032	616	1190	0.224	0.110	806
8	Math	32	0.038	620	1233	0.294	0.171	807
8	Math	33	0.108	623	1200	0.365	0.230	808
8	Math	34	0.178	626	1175	0.435	0.294	809
8	Math	35	0.249	629	1162	0.506	0.352	810

Grade 8 Mathematics
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Math	36	0.320	633	1161	0.577	0.409	811
8	Math	37	0.391	636	1120	0.649	0.466	812
8	Math	38	0.463	640	1097	0.721	0.522	813
8	Math	39	0.536	643	1046	0.795	0.586	814
8	Math	40	0.610	647	1037	0.869	0.643	815
8	Math	41	0.686	650	1099	0.945	0.698	815
8	Math	42	0.763	654	982	1.022	0.751	816
8	Math	43	0.841	658	985	1.101	0.811	817
8	Math	44	0.922	661	949	1.182	0.874	818
8	Math	45	1.004	665	885	1.265	0.928	819
8	Math	46	1.090	669	904	1.351	0.992	820
8	Math	47	1.178	674	900	1.439	1.054	822
8	Math	48	1.270	678	788	1.531	1.109	822
8	Math	49	1.366	682	805	1.628	1.175	824
8	Math	50	1.466	687	725	1.729	1.248	825
8	Math	51	1.573	692	717	1.835	1.313	826
8	Math	52	1.685	697	647	1.948	1.381	827
8	Math	53	1.806	703	674	2.069	1.453	828
8	Math	54	1.936	709	607	2.199	1.527	830
8	Math	55	2.079	716	565	2.342	1.617	831
8	Math	56	2.236	724	488	2.500	1.710	833
8	Math	57	2.415	732	425	2.678	1.809	834
8	Math	58	2.621	742	343	2.885	1.922	836
8	Math	59	2.867	753	322	3.131	2.047	838
8	Math	60	3.178	768	235	3.442	2.200	841
8	Math	61	3.606	788	154	3.871	2.361	844
8	Math	62	4.322	822	95	4.587	2.755	850
8	Math	63	5.542	879	24	5.806	2.900	853

Grade 3 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Science	0	-5.424	300	16	-5.873	N/A	236
3	Science	1	-4.183	353	22	-4.632	N/A	236
3	Science	2	-3.438	393	21	-3.886	N/A	236
3	Science	3	-2.982	418	16	-3.430	N/A	236
3	Science	4	-2.644	436	15	-3.091	N/A	241
3	Science	5	-2.371	451	15	-2.818	N/A	246
3	Science	6	-2.140	463	20	-2.587	N/A	250
3	Science	7	-1.937	474	40	-2.384	N/A	254
3	Science	8	-1.755	484	78	-2.202	N/A	257
3	Science	9	-1.589	493	112	-2.035	N/A	260
3	Science	10	-1.435	501	153	-1.881	N/A	263
3	Science	11	-1.291	509	199	-1.737	N/A	266
3	Science	12	-1.156	517	265	-1.602	N/A	268
3	Science	13	-1.026	523	335	-1.472	N/A	271
3	Science	14	-0.903	530	413	-1.349	N/A	273
3	Science	15	-0.784	536	462	-1.230	N/A	275
3	Science	16	-0.669	543	498	-1.115	N/A	278
3	Science	17	-0.557	549	591	-1.003	N/A	280
3	Science	18	-0.448	555	604	-0.894	N/A	282
3	Science	19	-0.340	560	750	-0.786	N/A	284
3	Science	20	-0.235	566	787	-0.681	N/A	286
3	Science	21	-0.131	572	872	-0.577	N/A	288
3	Science	22	-0.027	577	965	-0.473	N/A	290
3	Science	23	0.076	583	1017	-0.370	N/A	292
3	Science	24	0.179	588	1151	-0.268	N/A	293
3	Science	25	0.282	594	1169	-0.165	N/A	295
3	Science	26	0.386	600	1295	-0.061	N/A	297
3	Science	27	0.491	605	1300	0.044	N/A	299
3	Science	28	0.598	611	1313	0.150	N/A	301
3	Science	29	0.707	617	1353	0.259	N/A	303
3	Science	30	0.818	623	1352	0.370	N/A	305
3	Science	31	0.933	629	1355	0.484	N/A	308
3	Science	32	1.051	635	1331	0.602	N/A	310
3	Science	33	1.175	642	1345	0.725	N/A	312
3	Science	34	1.304	648	1262	0.854	N/A	314
3	Science	35	1.441	656	1116	0.990	N/A	317

Grade 3 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Science	36	1.587	663	963	1.135	N/A	320
3	Science	37	1.745	672	869	1.292	N/A	323
3	Science	38	1.918	682	700	1.464	N/A	326
3	Science	39	2.111	692	530	1.656	N/A	329
3	Science	40	2.331	704	412	1.876	N/A	334
3	Science	41	2.592	718	277	2.136	N/A	338
3	Science	42	2.918	735	142	2.460	N/A	345
3	Science	43	3.360	759	69	2.901	N/A	353
3	Science	44	4.090	798	15	3.630	N/A	364
3	Science	45	5.320	864	4	4.859	N/A	364

Grade 4 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Science	0	-5.309	326	0	-5.687	N/A	336
4	Science	1	-4.080	386	1	-4.457	N/A	336
4	Science	2	-3.351	421	0	-3.727	N/A	336
4	Science	3	-2.909	442	0	-3.284	N/A	336
4	Science	4	-2.584	458	3	-2.959	N/A	339
4	Science	5	-2.324	470	14	-2.698	N/A	344
4	Science	6	-2.104	481	20	-2.477	N/A	348
4	Science	7	-1.911	490	47	-2.283	N/A	352
4	Science	8	-1.738	499	118	-2.110	N/A	356
4	Science	9	-1.580	506	180	-1.952	N/A	359
4	Science	10	-1.434	514	294	-1.805	N/A	362
4	Science	11	-1.297	520	372	-1.668	N/A	364
4	Science	12	-1.167	526	437	-1.538	N/A	367
4	Science	13	-1.044	532	595	-1.414	N/A	369
4	Science	14	-0.925	538	658	-1.295	N/A	372
4	Science	15	-0.810	544	666	-1.180	N/A	374
4	Science	16	-0.699	549	873	-1.069	N/A	376
4	Science	17	-0.590	554	886	-0.960	N/A	378
4	Science	18	-0.483	559	1062	-0.853	N/A	380
4	Science	19	-0.378	565	1164	-0.748	N/A	382
4	Science	20	-0.274	570	1275	-0.644	N/A	384
4	Science	21	-0.171	575	1326	-0.541	N/A	386
4	Science	22	-0.068	580	1563	-0.438	N/A	388
4	Science	23	0.036	584	1558	-0.336	N/A	390
4	Science	24	0.139	589	1689	-0.233	N/A	392
4	Science	25	0.243	594	1831	-0.129	N/A	394
4	Science	26	0.348	600	1981	-0.024	N/A	397
4	Science	27	0.455	605	2076	0.082	N/A	399
4	Science	28	0.564	610	2142	0.190	N/A	401
4	Science	29	0.675	615	2285	0.301	N/A	403
4	Science	30	0.789	621	2437	0.414	N/A	405
4	Science	31	0.907	626	2495	0.531	N/A	407
4	Science	32	1.029	632	2561	0.653	N/A	410
4	Science	33	1.157	638	2501	0.779	N/A	412
4	Science	34	1.291	645	2524	0.912	N/A	415
4	Science	35	1.432	651	2488	1.053	N/A	418

Grade 4 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Science	36	1.583	659	2365	1.203	N/A	421
4	Science	37	1.746	667	2373	1.366	N/A	424
4	Science	38	1.925	675	2080	1.543	N/A	427
4	Science	39	2.124	685	1834	1.741	N/A	431
4	Science	40	2.350	696	1505	1.967	N/A	436
4	Science	41	2.617	708	1166	2.233	N/A	441
4	Science	42	2.949	724	886	2.563	N/A	447
4	Science	43	3.398	746	526	3.011	N/A	456
4	Science	44	4.134	782	231	3.747	N/A	464
4	Science	45	5.368	841	68	4.980	N/A	464

Grade 5 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Science	0	-5.414	300	6	-5.507	N/A	436
5	Science	1	-4.187	352	18	-4.279	N/A	436
5	Science	2	-3.459	395	16	-3.552	N/A	436
5	Science	3	-3.020	421	6	-3.112	N/A	436
5	Science	4	-2.697	440	10	-2.790	N/A	439
5	Science	5	-2.439	456	7	-2.532	N/A	445
5	Science	6	-2.221	468	10	-2.314	N/A	449
5	Science	7	-2.031	480	16	-2.124	N/A	454
5	Science	8	-1.862	490	27	-1.955	N/A	457
5	Science	9	-1.707	499	50	-1.800	N/A	461
5	Science	10	-1.564	507	69	-1.658	N/A	464
5	Science	11	-1.431	515	142	-1.525	N/A	467
5	Science	12	-1.306	522	201	-1.400	N/A	469
5	Science	13	-1.187	529	253	-1.281	N/A	472
5	Science	14	-1.073	536	321	-1.167	N/A	474
5	Science	15	-0.964	543	428	-1.058	N/A	477
5	Science	16	-0.858	549	422	-0.953	N/A	479
5	Science	17	-0.756	555	528	-0.850	N/A	481
5	Science	18	-0.656	561	610	-0.750	N/A	483
5	Science	19	-0.558	566	701	-0.653	N/A	485
5	Science	20	-0.462	572	797	-0.557	N/A	487
5	Science	21	-0.368	578	862	-0.463	N/A	489
5	Science	22	-0.274	583	899	-0.369	N/A	491
5	Science	23	-0.182	589	929	-0.277	N/A	493
5	Science	24	-0.090	594	1004	-0.185	N/A	495
5	Science	25	0.002	600	1080	-0.093	N/A	497
5	Science	26	0.094	605	1116	-0.002	N/A	499
5	Science	27	0.186	610	1118	0.090	N/A	501
5	Science	28	0.279	616	1167	0.183	N/A	503
5	Science	29	0.372	621	1162	0.276	N/A	505
5	Science	30	0.467	627	1224	0.370	N/A	507
5	Science	31	0.562	632	1199	0.466	N/A	510
5	Science	32	0.660	638	1188	0.563	N/A	512
5	Science	33	0.760	644	1134	0.662	N/A	514
5	Science	34	0.862	650	1075	0.764	N/A	516
5	Science	35	0.967	656	1004	0.869	N/A	518

Grade 5 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Science	36	1.076	663	897	0.978	N/A	521
5	Science	37	1.189	669	873	1.091	N/A	523
5	Science	38	1.308	676	762	1.209	N/A	526
5	Science	39	1.432	684	705	1.334	N/A	528
5	Science	40	1.565	692	584	1.466	N/A	531
5	Science	41	1.707	700	432	1.607	N/A	534
5	Science	42	1.860	709	432	1.761	N/A	538
5	Science	43	2.029	719	300	1.929	N/A	541
5	Science	44	2.218	730	192	2.118	N/A	545
5	Science	45	2.434	743	160	2.334	N/A	550
5	Science	46	2.691	758	90	2.591	N/A	555
5	Science	47	3.012	777	48	2.911	N/A	562
5	Science	48	3.450	803	22	3.349	N/A	564
5	Science	49	4.176	845	12	4.074	N/A	564
5	Science	50	5.402	900	0	5.300	N/A	564

Grade 6 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Science	0	-5.497	309	4	-5.637	N/A	536
6	Science	1	-4.269	371	13	-4.410	N/A	536
6	Science	2	-3.543	408	8	-3.684	N/A	536
6	Science	3	-3.104	431	12	-3.245	N/A	536
6	Science	4	-2.784	447	10	-2.925	N/A	536
6	Science	5	-2.527	460	7	-2.669	N/A	536
6	Science	6	-2.312	471	7	-2.453	N/A	539
6	Science	7	-2.125	481	13	-2.266	N/A	543
6	Science	8	-1.958	489	14	-2.100	N/A	547
6	Science	9	-1.807	497	38	-1.948	N/A	551
6	Science	10	-1.668	504	66	-1.810	N/A	554
6	Science	11	-1.538	510	100	-1.681	N/A	557
6	Science	12	-1.417	517	135	-1.560	N/A	560
6	Science	13	-1.303	522	179	-1.445	N/A	563
6	Science	14	-1.194	528	220	-1.336	N/A	565
6	Science	15	-1.090	533	307	-1.232	N/A	568
6	Science	16	-0.990	538	340	-1.132	N/A	570
6	Science	17	-0.893	543	348	-1.036	N/A	572
6	Science	18	-0.799	548	419	-0.942	N/A	575
6	Science	19	-0.708	553	451	-0.851	N/A	577
6	Science	20	-0.619	557	514	-0.762	N/A	579
6	Science	21	-0.532	562	536	-0.675	N/A	581
6	Science	22	-0.446	566	577	-0.589	N/A	583
6	Science	23	-0.361	570	609	-0.505	N/A	585
6	Science	24	-0.278	574	662	-0.421	N/A	587
6	Science	25	-0.195	579	692	-0.339	N/A	589
6	Science	26	-0.113	583	740	-0.257	N/A	591
6	Science	27	-0.031	587	731	-0.175	N/A	593
6	Science	28	0.051	591	800	-0.093	N/A	594
6	Science	29	0.132	595	768	-0.012	N/A	596
6	Science	30	0.214	600	779	0.070	N/A	598
6	Science	31	0.297	604	850	0.152	N/A	600
6	Science	32	0.380	608	877	0.235	N/A	602
6	Science	33	0.464	612	853	0.319	N/A	604
6	Science	34	0.549	616	926	0.404	N/A	606
6	Science	35	0.635	621	894	0.490	N/A	608

Grade 6 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Science	36	0.723	625	859	0.578	N/A	610
6	Science	37	0.813	630	889	0.668	N/A	612
6	Science	38	0.906	635	852	0.760	N/A	615
6	Science	39	1.001	639	959	0.856	N/A	617
6	Science	40	1.099	644	901	0.954	N/A	619
6	Science	41	1.201	650	858	1.056	N/A	622
6	Science	42	1.308	655	834	1.163	N/A	624
6	Science	43	1.420	661	817	1.275	N/A	627
6	Science	44	1.539	667	764	1.393	N/A	629
6	Science	45	1.665	673	736	1.519	N/A	632
6	Science	46	1.801	680	674	1.655	N/A	636
6	Science	47	1.949	687	594	1.803	N/A	639
6	Science	48	2.112	696	506	1.966	N/A	643
6	Science	49	2.295	705	395	2.149	N/A	647
6	Science	50	2.507	716	291	2.360	N/A	652
6	Science	51	2.758	729	235	2.612	N/A	658
6	Science	52	3.074	745	153	2.927	N/A	664
6	Science	53	3.507	767	95	3.361	N/A	664
6	Science	54	4.228	804	19	4.081	N/A	664
6	Science	55	5.451	866	9	5.304	N/A	664

Grade 7 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Science	0	-5.431	302	0	-5.510	N/A	636
7	Science	1	-4.207	369	0	-4.287	N/A	636
7	Science	2	-3.486	408	1	-3.566	N/A	636
7	Science	3	-3.053	431	0	-3.133	N/A	636
7	Science	4	-2.737	449	0	-2.817	N/A	642
7	Science	5	-2.485	462	1	-2.565	N/A	647
7	Science	6	-2.273	474	6	-2.354	N/A	651
7	Science	7	-2.089	484	17	-2.171	N/A	655
7	Science	8	-1.926	493	34	-2.007	N/A	658
7	Science	9	-1.778	501	67	-1.860	N/A	661
7	Science	10	-1.642	508	126	-1.724	N/A	664
7	Science	11	-1.515	515	205	-1.597	N/A	666
7	Science	12	-1.397	521	259	-1.479	N/A	668
7	Science	13	-1.284	527	383	-1.367	N/A	671
7	Science	14	-1.178	533	482	-1.260	N/A	673
7	Science	15	-1.076	539	573	-1.158	N/A	675
7	Science	16	-0.977	544	676	-1.060	N/A	677
7	Science	17	-0.882	549	761	-0.966	N/A	679
7	Science	18	-0.790	554	864	-0.874	N/A	681
7	Science	19	-0.701	559	889	-0.784	N/A	682
7	Science	20	-0.613	564	890	-0.697	N/A	684
7	Science	21	-0.527	568	1040	-0.611	N/A	686
7	Science	22	-0.443	573	1045	-0.526	N/A	687
7	Science	23	-0.359	577	1213	-0.443	N/A	689
7	Science	24	-0.277	582	1219	-0.361	N/A	691
7	Science	25	-0.196	586	1277	-0.280	N/A	692
7	Science	26	-0.115	591	1354	-0.199	N/A	694
7	Science	27	-0.034	595	1411	-0.118	N/A	696
7	Science	28	0.046	600	1540	-0.038	N/A	697
7	Science	29	0.127	604	1548	0.043	N/A	699
7	Science	30	0.208	608	1638	0.123	N/A	700
7	Science	31	0.289	613	1627	0.204	N/A	702
7	Science	32	0.371	617	1750	0.286	N/A	704
7	Science	33	0.453	622	1843	0.369	N/A	705
7	Science	34	0.537	626	1940	0.453	N/A	707
7	Science	35	0.622	631	1879	0.538	N/A	709

Grade 7 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Science	36	0.709	635	1956	0.625	N/A	710
7	Science	37	0.798	640	1982	0.713	N/A	712
7	Science	38	0.889	645	1942	0.805	N/A	714
7	Science	39	0.983	650	1908	0.898	N/A	716
7	Science	40	1.080	656	1760	0.995	N/A	718
7	Science	41	1.181	661	1887	1.096	N/A	720
7	Science	42	1.286	667	1789	1.202	N/A	722
7	Science	43	1.397	673	1638	1.312	N/A	724
7	Science	44	1.514	679	1589	1.429	N/A	726
7	Science	45	1.639	685	1376	1.554	N/A	729
7	Science	46	1.773	693	1196	1.689	N/A	731
7	Science	47	1.920	701	1074	1.835	N/A	734
7	Science	48	2.081	710	855	1.997	N/A	738
7	Science	49	2.263	720	675	2.179	N/A	741
7	Science	50	2.473	731	513	2.388	N/A	745
7	Science	51	2.722	745	364	2.638	N/A	750
7	Science	52	3.037	762	253	2.952	N/A	757
7	Science	53	3.468	785	118	3.384	N/A	764
7	Science	54	4.187	824	49	4.103	N/A	764
7	Science	55	5.409	891	8	5.324	N/A	764

Grade 8 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Science	0	-5.509	300	11	-5.671	N/A	736
8	Science	1	-4.287	363	19	-4.450	N/A	736
8	Science	2	-3.569	402	12	-3.732	N/A	736
8	Science	3	-3.138	424	11	-3.302	N/A	736
8	Science	4	-2.825	441	12	-2.989	N/A	738
8	Science	5	-2.576	454	6	-2.741	N/A	743
8	Science	6	-2.367	466	10	-2.533	N/A	747
8	Science	7	-2.187	475	3	-2.353	N/A	751
8	Science	8	-2.027	484	9	-2.193	N/A	754
8	Science	9	-1.882	491	15	-2.049	N/A	757
8	Science	10	-1.749	498	33	-1.916	N/A	760
8	Science	11	-1.626	505	60	-1.794	N/A	762
8	Science	12	-1.511	511	88	-1.679	N/A	765
8	Science	13	-1.403	517	121	-1.571	N/A	767
8	Science	14	-1.300	522	164	-1.469	N/A	769
8	Science	15	-1.201	528	213	-1.371	N/A	771
8	Science	16	-1.107	533	265	-1.277	N/A	773
8	Science	17	-1.016	537	332	-1.186	N/A	775
8	Science	18	-0.928	542	387	-1.099	N/A	776
8	Science	19	-0.843	547	450	-1.014	N/A	778
8	Science	20	-0.760	551	467	-0.931	N/A	780
8	Science	21	-0.679	555	524	-0.850	N/A	781
8	Science	22	-0.599	560	564	-0.771	N/A	783
8	Science	23	-0.521	564	556	-0.693	N/A	784
8	Science	24	-0.444	568	608	-0.617	N/A	786
8	Science	25	-0.368	572	608	-0.541	N/A	788
8	Science	26	-0.293	576	618	-0.466	N/A	789
8	Science	27	-0.219	580	707	-0.392	N/A	791
8	Science	28	-0.145	584	675	-0.318	N/A	792
8	Science	29	-0.071	588	704	-0.245	N/A	794
8	Science	30	0.002	592	769	-0.172	N/A	795
8	Science	31	0.076	596	729	-0.098	N/A	796
8	Science	32	0.149	600	788	-0.025	N/A	798
8	Science	33	0.223	603	732	0.049	N/A	799
8	Science	34	0.298	607	720	0.123	N/A	801
8	Science	35	0.373	611	809	0.198	N/A	802

Grade 8 Science
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Science	36	0.448	615	808	0.274	N/A	804
8	Science	37	0.525	620	818	0.350	N/A	806
8	Science	38	0.603	624	801	0.428	N/A	807
8	Science	39	0.682	628	841	0.507	N/A	809
8	Science	40	0.763	632	851	0.588	N/A	810
8	Science	41	0.846	637	779	0.670	N/A	812
8	Science	42	0.931	641	841	0.755	N/A	814
8	Science	43	1.018	646	805	0.843	N/A	815
8	Science	44	1.108	650	829	0.933	N/A	817
8	Science	45	1.202	656	780	1.027	N/A	819
8	Science	46	1.300	661	724	1.125	N/A	821
8	Science	47	1.403	666	680	1.227	N/A	823
8	Science	48	1.511	671	684	1.335	N/A	825
8	Science	49	1.625	678	598	1.449	N/A	828
8	Science	50	1.747	685	553	1.572	N/A	830
8	Science	51	1.880	692	467	1.704	N/A	833
8	Science	52	2.024	700	393	1.848	N/A	836
8	Science	53	2.183	708	311	2.008	N/A	839
8	Science	54	2.363	718	240	2.188	N/A	843
8	Science	55	2.571	729	176	2.396	N/A	847
8	Science	56	2.819	742	96	2.644	N/A	852
8	Science	57	3.132	759	72	2.957	N/A	858
8	Science	58	3.562	782	32	3.387	N/A	864
8	Science	59	4.280	820	16	4.104	N/A	864
8	Science	60	5.501	885	0	5.325	N/A	864

Grade 3 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Soc. Studies	0	-5.248	360	6	-4.784	N/A	236
3	Soc. Studies	1	-4.017	418	8	-3.549	N/A	236
3	Soc. Studies	2	-3.286	453	2	-2.813	N/A	246
3	Soc. Studies	3	-2.843	475	5	-2.365	N/A	253
3	Soc. Studies	4	-2.517	490	9	-2.037	N/A	259
3	Soc. Studies	5	-2.257	503	16	-1.773	N/A	263
3	Soc. Studies	6	-2.037	513	34	-1.551	N/A	267
3	Soc. Studies	7	-1.845	523	74	-1.357	N/A	270
3	Soc. Studies	8	-1.673	531	120	-1.183	N/A	273
3	Soc. Studies	9	-1.517	538	219	-1.025	N/A	276
3	Soc. Studies	10	-1.373	545	314	-0.879	N/A	278
3	Soc. Studies	11	-1.238	552	380	-0.743	N/A	280
3	Soc. Studies	12	-1.111	558	515	-0.614	N/A	282
3	Soc. Studies	13	-0.990	564	572	-0.492	N/A	284
3	Soc. Studies	14	-0.874	569	631	-0.375	N/A	286
3	Soc. Studies	15	-0.762	575	713	-0.262	N/A	288
3	Soc. Studies	16	-0.654	580	762	-0.153	N/A	290
3	Soc. Studies	17	-0.549	585	850	-0.046	N/A	292
3	Soc. Studies	18	-0.445	590	867	0.058	N/A	294
3	Soc. Studies	19	-0.344	595	873	0.160	N/A	295
3	Soc. Studies	20	-0.244	600	897	0.261	N/A	297
3	Soc. Studies	21	-0.145	604	924	0.361	N/A	299
3	Soc. Studies	22	-0.047	609	934	0.461	N/A	300
3	Soc. Studies	23	0.052	614	981	0.560	N/A	302
3	Soc. Studies	24	0.150	618	939	0.660	N/A	304
3	Soc. Studies	25	0.249	623	1042	0.760	N/A	305
3	Soc. Studies	26	0.349	628	1047	0.860	N/A	307
3	Soc. Studies	27	0.450	633	1057	0.963	N/A	309
3	Soc. Studies	28	0.553	638	1003	1.066	N/A	310
3	Soc. Studies	29	0.658	643	1021	1.172	N/A	312
3	Soc. Studies	30	0.766	648	955	1.281	N/A	314
3	Soc. Studies	31	0.878	652	1014	1.394	N/A	316
3	Soc. Studies	32	0.993	659	983	1.510	N/A	318
3	Soc. Studies	33	1.114	665	935	1.631	N/A	320
3	Soc. Studies	34	1.241	671	962	1.759	N/A	322
3	Soc. Studies	35	1.375	677	967	1.894	N/A	324

Grade 3 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Soc. Studies	36	1.518	684	936	2.038	N/A	326
3	Soc. Studies	37	1.674	691	835	2.194	N/A	329
3	Soc. Studies	38	1.844	699	733	2.365	N/A	332
3	Soc. Studies	39	2.035	709	668	2.557	N/A	335
3	Soc. Studies	40	2.253	719	520	2.776	N/A	339
3	Soc. Studies	41	2.512	731	410	3.035	N/A	343
3	Soc. Studies	42	2.834	747	301	3.358	N/A	348
3	Soc. Studies	43	3.275	768	194	3.799	N/A	356
3	Soc. Studies	44	4.002	802	80	4.527	N/A	364
3	Soc. Studies	45	5.230	861	25	5.755	N/A	364

Grade 4 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Soc. Studies	0	-5.304	350	0	-5.094	N/A	336
4	Soc. Studies	1	-4.079	414	1	-3.868	N/A	336
4	Soc. Studies	2	-3.357	452	0	-3.144	N/A	339
4	Soc. Studies	3	-2.922	475	0	-2.707	N/A	347
4	Soc. Studies	4	-2.604	491	5	-2.388	N/A	353
4	Soc. Studies	5	-2.351	504	10	-2.133	N/A	358
4	Soc. Studies	6	-2.138	516	14	-1.919	N/A	363
4	Soc. Studies	7	-1.952	525	46	-1.732	N/A	366
4	Soc. Studies	8	-1.787	534	106	-1.566	N/A	369
4	Soc. Studies	9	-1.637	542	213	-1.415	N/A	372
4	Soc. Studies	10	-1.499	549	343	-1.276	N/A	375
4	Soc. Studies	11	-1.370	556	490	-1.147	N/A	377
4	Soc. Studies	12	-1.249	562	793	-1.025	N/A	380
4	Soc. Studies	13	-1.135	568	938	-0.910	N/A	382
4	Soc. Studies	14	-1.025	574	1171	-0.800	N/A	384
4	Soc. Studies	15	-0.920	579	1367	-0.695	N/A	386
4	Soc. Studies	16	-0.819	585	1616	-0.593	N/A	388
4	Soc. Studies	17	-0.721	590	1755	-0.495	N/A	390
4	Soc. Studies	18	-0.625	595	1839	-0.399	N/A	392
4	Soc. Studies	19	-0.532	600	1860	-0.305	N/A	394
4	Soc. Studies	20	-0.440	604	1979	-0.214	N/A	395
4	Soc. Studies	21	-0.350	609	2045	-0.123	N/A	397
4	Soc. Studies	22	-0.261	614	2055	-0.034	N/A	399
4	Soc. Studies	23	-0.173	618	2027	0.054	N/A	400
4	Soc. Studies	24	-0.085	623	1959	0.142	N/A	402
4	Soc. Studies	25	0.002	627	1955	0.229	N/A	404
4	Soc. Studies	26	0.090	632	1921	0.317	N/A	406
4	Soc. Studies	27	0.178	636	1843	0.404	N/A	407
4	Soc. Studies	28	0.266	641	1808	0.492	N/A	409
4	Soc. Studies	29	0.355	646	1759	0.581	N/A	411
4	Soc. Studies	30	0.445	650	1720	0.671	N/A	412
4	Soc. Studies	31	0.536	655	1702	0.762	N/A	414
4	Soc. Studies	32	0.629	660	1574	0.855	N/A	416
4	Soc. Studies	33	0.724	665	1467	0.950	N/A	418
4	Soc. Studies	34	0.822	670	1428	1.047	N/A	420
4	Soc. Studies	35	0.923	675	1392	1.147	N/A	422

4 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Soc. Studies	36	1.027	680	1383	1.252	N/A	424
4	Soc. Studies	37	1.136	686	1367	1.360	N/A	426
4	Soc. Studies	38	1.250	692	1268	1.473	N/A	428
4	Soc. Studies	39	1.370	698	1201	1.593	N/A	430
4	Soc. Studies	40	1.498	705	1150	1.721	N/A	433
4	Soc. Studies	41	1.636	712	1128	1.858	N/A	435
4	Soc. Studies	42	1.785	720	1031	2.006	N/A	438
4	Soc. Studies	43	1.949	728	884	2.170	N/A	441
4	Soc. Studies	44	2.134	738	812	2.354	N/A	445
4	Soc. Studies	45	2.346	749	670	2.566	N/A	449
4	Soc. Studies	46	2.599	762	465	2.818	N/A	454
4	Soc. Studies	47	2.916	778	309	3.134	N/A	460
4	Soc. Studies	48	3.350	801	175	3.568	N/A	464
4	Soc. Studies	49	4.072	838	51	4.289	N/A	464
4	Soc. Studies	50	5.295	900	14	5.512	N/A	464

Grade 5 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Soc. Studies	0	-5.382	320	2	-5.538	N/A	436
5	Soc. Studies	1	-4.155	385	4	-4.310	N/A	436
5	Soc. Studies	2	-3.427	423	0	-3.582	N/A	436
5	Soc. Studies	3	-2.988	446	3	-3.143	N/A	437
5	Soc. Studies	4	-2.665	463	3	-2.821	N/A	443
5	Soc. Studies	5	-2.408	477	8	-2.563	N/A	449
5	Soc. Studies	6	-2.190	488	19	-2.346	N/A	453
5	Soc. Studies	7	-2.001	498	27	-2.156	N/A	457
5	Soc. Studies	8	-1.832	507	57	-1.988	N/A	460
5	Soc. Studies	9	-1.678	515	93	-1.834	N/A	463
5	Soc. Studies	10	-1.536	523	134	-1.692	N/A	466
5	Soc. Studies	11	-1.404	530	212	-1.561	N/A	469
5	Soc. Studies	12	-1.279	536	288	-1.436	N/A	471
5	Soc. Studies	13	-1.161	543	364	-1.319	N/A	474
5	Soc. Studies	14	-1.049	548	458	-1.206	N/A	476
5	Soc. Studies	15	-0.941	554	482	-1.099	N/A	478
5	Soc. Studies	16	-0.836	560	534	-0.994	N/A	480
5	Soc. Studies	17	-0.735	565	627	-0.893	N/A	482
5	Soc. Studies	18	-0.636	570	660	-0.795	N/A	484
5	Soc. Studies	19	-0.540	575	730	-0.699	N/A	486
5	Soc. Studies	20	-0.446	580	697	-0.605	N/A	488
5	Soc. Studies	21	-0.353	585	763	-0.512	N/A	490
5	Soc. Studies	22	-0.261	590	809	-0.420	N/A	492
5	Soc. Studies	23	-0.170	595	854	-0.330	N/A	494
5	Soc. Studies	24	-0.080	600	829	-0.239	N/A	495
5	Soc. Studies	25	0.010	604	868	-0.150	N/A	497
5	Soc. Studies	26	0.100	609	913	-0.060	N/A	499
5	Soc. Studies	27	0.190	614	884	0.030	N/A	501
5	Soc. Studies	28	0.280	618	945	0.120	N/A	503
5	Soc. Studies	29	0.372	623	942	0.212	N/A	504
5	Soc. Studies	30	0.464	628	955	0.304	N/A	506
5	Soc. Studies	31	0.557	633	953	0.397	N/A	508
5	Soc. Studies	32	0.652	638	1009	0.492	N/A	510
5	Soc. Studies	33	0.750	643	951	0.589	N/A	512
5	Soc. Studies	34	0.849	648	984	0.689	N/A	514
5	Soc. Studies	35	0.952	654	869	0.792	N/A	516

Grade 5 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Soc. Studies	36	1.058	659	951	0.898	N/A	518
5	Soc. Studies	37	1.168	665	942	1.008	N/A	521
5	Soc. Studies	38	1.284	671	885	1.124	N/A	523
5	Soc. Studies	39	1.406	678	840	1.246	N/A	525
5	Soc. Studies	40	1.535	685	743	1.375	N/A	528
5	Soc. Studies	41	1.674	692	686	1.514	N/A	531
5	Soc. Studies	42	1.824	700	593	1.665	N/A	534
5	Soc. Studies	43	1.990	709	536	1.830	N/A	537
5	Soc. Studies	44	2.175	718	408	2.016	N/A	541
5	Soc. Studies	45	2.389	730	277	2.229	N/A	545
5	Soc. Studies	46	2.642	743	196	2.483	N/A	550
5	Soc. Studies	47	2.960	760	98	2.800	N/A	557
5	Soc. Studies	48	3.394	783	51	3.235	N/A	564
5	Soc. Studies	49	4.116	821	18	3.957	N/A	564
5	Soc. Studies	50	5.340	885	2	5.181	N/A	564

Grade 6 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Soc. Studies	0	-5.365	332	2	-5.111	N/A	536
6	Soc. Studies	1	-4.144	399	0	-3.890	N/A	536
6	Soc. Studies	2	-3.426	439	4	-3.172	N/A	536
6	Soc. Studies	3	-2.995	463	4	-2.742	N/A	542
6	Soc. Studies	4	-2.681	480	2	-2.429	N/A	549
6	Soc. Studies	5	-2.432	494	0	-2.180	N/A	554
6	Soc. Studies	6	-2.223	505	5	-1.971	N/A	559
6	Soc. Studies	7	-2.042	515	14	-1.791	N/A	562
6	Soc. Studies	8	-1.882	524	34	-1.630	N/A	566
6	Soc. Studies	9	-1.736	532	74	-1.485	N/A	569
6	Soc. Studies	10	-1.603	540	114	-1.352	N/A	572
6	Soc. Studies	11	-1.479	546	184	-1.228	N/A	575
6	Soc. Studies	12	-1.363	553	241	-1.113	N/A	577
6	Soc. Studies	13	-1.254	559	320	-1.003	N/A	580
6	Soc. Studies	14	-1.150	565	416	-0.899	N/A	582
6	Soc. Studies	15	-1.050	570	480	-0.800	N/A	584
6	Soc. Studies	16	-0.954	575	563	-0.705	N/A	586
6	Soc. Studies	17	-0.862	580	585	-0.612	N/A	588
6	Soc. Studies	18	-0.772	585	690	-0.523	N/A	590
6	Soc. Studies	19	-0.685	590	763	-0.436	N/A	592
6	Soc. Studies	20	-0.600	595	761	-0.351	N/A	594
6	Soc. Studies	21	-0.517	600	800	-0.267	N/A	596
6	Soc. Studies	22	-0.435	604	819	-0.186	N/A	597
6	Soc. Studies	23	-0.354	608	860	-0.105	N/A	599
6	Soc. Studies	24	-0.274	613	909	-0.025	N/A	601
6	Soc. Studies	25	-0.195	617	884	0.054	N/A	603
6	Soc. Studies	26	-0.116	622	901	0.133	N/A	604
6	Soc. Studies	27	-0.038	626	857	0.211	N/A	606
6	Soc. Studies	28	0.041	630	919	0.289	N/A	608
6	Soc. Studies	29	0.119	635	879	0.368	N/A	609
6	Soc. Studies	30	0.198	639	930	0.446	N/A	611
6	Soc. Studies	31	0.277	643	828	0.525	N/A	613
6	Soc. Studies	32	0.356	648	884	0.605	N/A	615
6	Soc. Studies	33	0.437	652	854	0.685	N/A	616
6	Soc. Studies	34	0.519	657	763	0.767	N/A	618
6	Soc. Studies	35	0.602	661	815	0.850	N/A	620

Grade 6 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Soc. Studies	36	0.687	666	763	0.935	N/A	622
6	Soc. Studies	37	0.774	670	759	1.022	N/A	624
6	Soc. Studies	38	0.863	676	716	1.111	N/A	626
6	Soc. Studies	39	0.955	681	630	1.203	N/A	628
6	Soc. Studies	40	1.051	686	630	1.299	N/A	630
6	Soc. Studies	41	1.150	692	603	1.398	N/A	632
6	Soc. Studies	42	1.254	697	564	1.501	N/A	634
6	Soc. Studies	43	1.363	703	496	1.610	N/A	637
6	Soc. Studies	44	1.478	710	468	1.726	N/A	639
6	Soc. Studies	45	1.602	716	417	1.849	N/A	642
6	Soc. Studies	46	1.735	724	380	1.982	N/A	645
6	Soc. Studies	47	1.880	732	362	2.127	N/A	648
6	Soc. Studies	48	2.040	741	270	2.287	N/A	651
6	Soc. Studies	49	2.221	751	233	2.467	N/A	655
6	Soc. Studies	50	2.429	762	157	2.675	N/A	660
6	Soc. Studies	51	2.678	776	123	2.923	N/A	664
6	Soc. Studies	52	2.991	793	92	3.236	N/A	664
6	Soc. Studies	53	3.422	817	44	3.666	N/A	664
6	Soc. Studies	54	4.140	857	21	4.384	N/A	664
6	Soc. Studies	55	5.361	900	5	5.605	N/A	664

Grade 7 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Soc. Studies	0	-5.429	334	0	-5.697	N/A	636
7	Soc. Studies	1	-4.209	395	1	-4.477	N/A	636
7	Soc. Studies	2	-3.493	431	0	-3.761	N/A	636
7	Soc. Studies	3	-3.065	453	0	-3.332	N/A	636
7	Soc. Studies	4	-2.754	468	0	-3.020	N/A	639
7	Soc. Studies	5	-2.507	481	1	-2.773	N/A	644
7	Soc. Studies	6	-2.301	491	6	-2.567	N/A	648
7	Soc. Studies	7	-2.123	500	18	-2.389	N/A	652
7	Soc. Studies	8	-1.965	508	39	-2.231	N/A	656
7	Soc. Studies	9	-1.823	515	101	-2.088	N/A	659
7	Soc. Studies	10	-1.693	521	150	-1.958	N/A	662
7	Soc. Studies	11	-1.572	528	267	-1.837	N/A	664
7	Soc. Studies	12	-1.460	533	402	-1.724	N/A	667
7	Soc. Studies	13	-1.354	538	591	-1.618	N/A	669
7	Soc. Studies	14	-1.253	543	774	-1.517	N/A	671
7	Soc. Studies	15	-1.158	548	969	-1.422	N/A	673
7	Soc. Studies	16	-1.066	553	1219	-1.330	N/A	675
7	Soc. Studies	17	-0.978	557	1365	-1.241	N/A	677
7	Soc. Studies	18	-0.893	562	1389	-1.156	N/A	679
7	Soc. Studies	19	-0.810	566	1463	-1.073	N/A	681
7	Soc. Studies	20	-0.730	570	1454	-0.993	N/A	683
7	Soc. Studies	21	-0.651	574	1502	-0.914	N/A	685
7	Soc. Studies	22	-0.574	578	1485	-0.837	N/A	686
7	Soc. Studies	23	-0.499	581	1508	-0.761	N/A	688
7	Soc. Studies	24	-0.425	585	1431	-0.687	N/A	690
7	Soc. Studies	25	-0.352	589	1455	-0.613	N/A	691
7	Soc. Studies	26	-0.279	592	1425	-0.541	N/A	693
7	Soc. Studies	27	-0.208	596	1359	-0.469	N/A	694
7	Soc. Studies	28	-0.136	600	1253	-0.397	N/A	696
7	Soc. Studies	29	-0.066	603	1274	-0.326	N/A	697
7	Soc. Studies	30	0.005	607	1392	-0.255	N/A	699
7	Soc. Studies	31	0.076	610	1324	-0.184	N/A	700
7	Soc. Studies	32	0.147	614	1358	-0.113	N/A	702
7	Soc. Studies	33	0.218	617	1257	-0.042	N/A	704
7	Soc. Studies	34	0.289	621	1320	0.030	N/A	705
7	Soc. Studies	35	0.361	624	1297	0.102	N/A	707

Grade 7 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Soc. Studies	36	0.434	628	1247	0.175	N/A	708
7	Soc. Studies	37	0.508	632	1211	0.249	N/A	710
7	Soc. Studies	38	0.583	636	1223	0.324	N/A	712
7	Soc. Studies	39	0.659	639	1259	0.401	N/A	713
7	Soc. Studies	40	0.737	643	1310	0.479	N/A	715
7	Soc. Studies	41	0.817	647	1190	0.559	N/A	717
7	Soc. Studies	42	0.898	651	1196	0.641	N/A	719
7	Soc. Studies	43	0.983	656	1185	0.726	N/A	720
7	Soc. Studies	44	1.070	660	1142	0.814	N/A	722
7	Soc. Studies	45	1.161	665	1064	0.905	N/A	724
7	Soc. Studies	46	1.255	669	1033	1.000	N/A	726
7	Soc. Studies	47	1.354	674	1041	1.099	N/A	728
7	Soc. Studies	48	1.459	680	955	1.205	N/A	731
7	Soc. Studies	49	1.570	685	913	1.316	N/A	733
7	Soc. Studies	50	1.690	691	877	1.436	N/A	736
7	Soc. Studies	51	1.818	698	767	1.565	N/A	739
7	Soc. Studies	52	1.959	705	659	1.706	N/A	742
7	Soc. Studies	53	2.115	713	595	1.863	N/A	745
7	Soc. Studies	54	2.291	721	475	2.040	N/A	749
7	Soc. Studies	55	2.496	732	424	2.245	N/A	753
7	Soc. Studies	56	2.740	744	337	2.490	N/A	759
7	Soc. Studies	57	3.049	759	247	2.799	N/A	764
7	Soc. Studies	58	3.476	781	141	3.226	N/A	764
7	Soc. Studies	59	4.189	816	69	3.941	N/A	764
7	Soc. Studies	60	5.407	877	16	5.160	N/A	764

Grade 8 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Soc. Studies	0	-5.479	300	3	-5.048	N/A	736
8	Soc. Studies	1	-4.258	362	5	-3.827	N/A	736
8	Soc. Studies	2	-3.540	406	2	-3.110	N/A	742
8	Soc. Studies	3	-3.110	432	2	-2.680	N/A	750
8	Soc. Studies	4	-2.797	451	1	-2.367	N/A	755
8	Soc. Studies	5	-2.549	466	2	-2.119	N/A	759
8	Soc. Studies	6	-2.341	479	4	-1.912	N/A	762
8	Soc. Studies	7	-2.161	490	5	-1.732	N/A	765
8	Soc. Studies	8	-2.001	499	9	-1.573	N/A	768
8	Soc. Studies	9	-1.857	508	35	-1.429	N/A	771
8	Soc. Studies	10	-1.725	516	64	-1.297	N/A	773
8	Soc. Studies	11	-1.603	524	104	-1.175	N/A	775
8	Soc. Studies	12	-1.489	531	175	-1.061	N/A	777
8	Soc. Studies	13	-1.381	537	259	-0.954	N/A	778
8	Soc. Studies	14	-1.279	543	333	-0.852	N/A	780
8	Soc. Studies	15	-1.182	549	465	-0.755	N/A	782
8	Soc. Studies	16	-1.088	555	545	-0.662	N/A	783
8	Soc. Studies	17	-0.998	561	612	-0.572	N/A	785
8	Soc. Studies	18	-0.911	566	668	-0.485	N/A	786
8	Soc. Studies	19	-0.827	571	684	-0.401	N/A	788
8	Soc. Studies	20	-0.745	576	741	-0.319	N/A	789
8	Soc. Studies	21	-0.665	581	735	-0.239	N/A	790
8	Soc. Studies	22	-0.586	586	807	-0.161	N/A	792
8	Soc. Studies	23	-0.509	590	779	-0.084	N/A	793
8	Soc. Studies	24	-0.433	595	791	-0.008	N/A	794
8	Soc. Studies	25	-0.358	600	789	0.067	N/A	796
8	Soc. Studies	26	-0.284	604	759	0.141	N/A	797
8	Soc. Studies	27	-0.211	608	801	0.214	N/A	798
8	Soc. Studies	28	-0.138	613	818	0.286	N/A	799
8	Soc. Studies	29	-0.066	617	830	0.359	N/A	800
8	Soc. Studies	30	0.007	622	779	0.431	N/A	802
8	Soc. Studies	31	0.079	626	813	0.503	N/A	803
8	Soc. Studies	32	0.151	631	825	0.575	N/A	804
8	Soc. Studies	33	0.224	635	813	0.648	N/A	805
8	Soc. Studies	34	0.297	639	817	0.721	N/A	806
8	Soc. Studies	35	0.370	644	823	0.795	N/A	808

Grade 8 Social Studies
2009 PASS Raw Score to PACT Scale Score Conversion Table (cont.)

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Soc. Studies	36	0.445	648	777	0.869	N/A	809
8	Soc. Studies	37	0.520	653	816	0.944	N/A	810
8	Soc. Studies	38	0.596	658	772	1.021	N/A	811
8	Soc. Studies	39	0.674	662	733	1.098	N/A	813
8	Soc. Studies	40	0.754	667	741	1.178	N/A	814
8	Soc. Studies	41	0.835	672	681	1.259	N/A	815
8	Soc. Studies	42	0.918	677	638	1.342	N/A	817
8	Soc. Studies	43	1.004	683	626	1.428	N/A	818
8	Soc. Studies	44	1.093	688	629	1.517	N/A	820
8	Soc. Studies	45	1.185	694	578	1.609	N/A	821
8	Soc. Studies	46	1.281	700	471	1.705	N/A	823
8	Soc. Studies	47	1.382	706	392	1.806	N/A	825
8	Soc. Studies	48	1.488	712	371	1.913	N/A	826
8	Soc. Studies	49	1.600	719	281	2.025	N/A	828
8	Soc. Studies	50	1.721	726	213	2.146	N/A	830
8	Soc. Studies	51	1.851	734	154	2.276	N/A	833
8	Soc. Studies	52	1.993	743	138	2.419	N/A	835
8	Soc. Studies	53	2.151	753	92	2.577	N/A	838
8	Soc. Studies	54	2.329	764	40	2.755	N/A	841
8	Soc. Studies	55	2.534	776	33	2.961	N/A	844
8	Soc. Studies	56	2.780	791	16	3.207	N/A	848
8	Soc. Studies	57	3.091	810	13	3.518	N/A	853
8	Soc. Studies	58	3.519	836	2	3.946	N/A	860
8	Soc. Studies	59	4.234	880	0	4.661	N/A	864
8	Soc. Studies	60	5.453	900	1	5.881	N/A	864

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Read & Res	0	-5.320	375	0	-5.248	-2.773	253
3	Read & Res	1	-4.068	432	4	-3.995	-2.709	254
3	Read & Res	2	-3.306	466	7	-3.233	-2.540	257
3	Read & Res	3	-2.832	488	16	-2.760	-2.346	260
3	Read & Res	4	-2.477	504	47	-2.405	-2.093	264
3	Read & Res	5	-2.186	517	148	-2.114	-1.804	269
3	Read & Res	6	-1.936	528	321	-1.865	-1.463	275
3	Read & Res	7	-1.714	538	513	-1.644	-1.242	278
3	Read & Res	8	-1.512	547	738	-1.444	-1.044	282
3	Read & Res	9	-1.326	556	986	-1.259	-0.877	284
3	Read & Res	10	-1.152	564	1199	-1.087	-0.723	287
3	Read & Res	11	-0.987	571	1421	-0.924	-0.592	289
3	Read & Res	12	-0.830	578	1610	-0.768	-0.466	291
3	Read & Res	13	-0.679	585	1737	-0.619	-0.350	293
3	Read & Res	14	-0.532	591	1878	-0.474	-0.239	295
3	Read & Res	15	-0.390	598	2078	-0.333	-0.129	297
3	Read & Res	16	-0.250	604	2203	-0.194	-0.023	298
3	Read & Res	17	-0.112	610	2252	-0.058	0.084	300
3	Read & Res	18	0.025	616	2459	0.078	0.184	302
3	Read & Res	19	0.162	622	2453	0.213	0.293	304
3	Read & Res	20	0.298	628	2465	0.348	0.396	305
3	Read & Res	21	0.436	635	2649	0.485	0.501	307
3	Read & Res	22	0.576	641	2781	0.623	0.606	309
3	Read & Res	23	0.718	647	2607	0.765	0.717	311
3	Read & Res	24	0.864	654	2764	0.910	0.824	312
3	Read & Res	25	1.015	661	2766	1.061	0.938	314
3	Read & Res	26	1.173	668	2707	1.218	1.058	316
3	Read & Res	27	1.339	675	2556	1.384	1.199	319
3	Read & Res	28	1.516	683	2380	1.562	1.338	321
3	Read & Res	29	1.708	692	2285	1.753	1.495	324
3	Read & Res	30	1.919	702	1926	1.965	1.667	326
3	Read & Res	31	2.157	712	1675	2.204	1.859	330
3	Read & Res	32	2.435	725	1308	2.483	2.067	333
3	Read & Res	33	2.777	741	908	2.827	2.306	337
3	Read & Res	34	3.236	761	562	3.287	2.618	342
3	Read & Res	35	3.982	795	245	4.035	2.937	347
3	Read & Res	36	5.222	851	63	5.278	3.125	351

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Read & Res	0	-5.230	385	2	-5.920	-3.210	345
4	Read & Res	1	-3.985	433	1	-4.675	-3.180	346
4	Read & Res	2	-3.233	462	4	-3.922	-3.017	349
4	Read & Res	3	-2.768	480	13	-3.457	-2.863	351
4	Read & Res	4	-2.420	494	24	-3.109	-2.711	354
4	Read & Res	5	-2.136	505	62	-2.825	-2.483	357
4	Read & Res	6	-1.893	515	135	-2.581	-2.223	362
4	Read & Res	7	-1.677	523	195	-2.365	-1.962	366
4	Read & Res	8	-1.480	531	315	-2.169	-1.720	370
4	Read & Res	9	-1.299	538	438	-1.987	-1.559	373
4	Read & Res	10	-1.129	544	552	-1.817	-1.393	375
4	Read & Res	11	-0.969	551	686	-1.657	-1.238	378
4	Read & Res	12	-0.815	556	860	-1.503	-1.085	381
4	Read & Res	13	-0.667	562	1069	-1.355	-0.953	383
4	Read & Res	14	-0.524	568	1147	-1.212	-0.822	385
4	Read & Res	15	-0.385	573	1322	-1.072	-0.701	387
4	Read & Res	16	-0.248	579	1486	-0.935	-0.581	389
4	Read & Res	17	-0.113	584	1636	-0.799	-0.474	391
4	Read & Res	18	0.021	589	1779	-0.665	-0.366	393
4	Read & Res	19	0.155	594	1815	-0.531	-0.255	394
4	Read & Res	20	0.289	600	1963	-0.397	-0.151	396
4	Read & Res	21	0.423	605	2054	-0.262	-0.047	398
4	Read & Res	22	0.560	610	2137	-0.126	0.057	400
4	Read & Res	23	0.699	616	2208	0.014	0.162	401
4	Read & Res	24	0.842	621	2229	0.157	0.272	403
4	Read & Res	25	0.990	627	2378	0.305	0.384	405
4	Read & Res	26	1.145	633	2505	0.460	0.498	407
4	Read & Res	27	1.308	639	2574	0.623	0.622	409
4	Read & Res	28	1.482	646	2694	0.797	0.750	411
4	Read & Res	29	1.670	653	2847	0.985	0.894	413
4	Read & Res	30	1.877	661	3008	1.192	1.051	416
4	Read & Res	31	2.111	669	3153	1.426	1.230	419
4	Read & Res	32	2.386	681	2962	1.700	1.440	423
4	Read & Res	33	2.723	694	2691	2.038	1.695	427
4	Read & Res	34	3.178	712	2185	2.492	1.982	432
4	Read & Res	35	3.919	741	1372	3.233	2.355	438
4	Read & Res	36	5.157	789	602	4.470	2.664	443

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Read & Res	0	-5.316	338	0	-5.920	-3.170	445
5	Read & Res	1	-4.072	397	1	-4.673	-3.126	446
5	Read & Res	2	-3.323	433	0	-3.920	-3.058	447
5	Read & Res	3	-2.861	455	3	-3.454	-2.912	450
5	Read & Res	4	-2.517	472	11	-3.106	-2.755	452
5	Read & Res	5	-2.237	486	39	-2.823	-2.491	457
5	Read & Res	6	-1.998	497	89	-2.580	-2.173	462
5	Read & Res	7	-1.786	507	136	-2.366	-1.954	466
5	Read & Res	8	-1.594	517	243	-2.171	-1.750	469
5	Read & Res	9	-1.417	525	339	-1.992	-1.578	472
5	Read & Res	10	-1.252	533	468	-1.825	-1.414	475
5	Read & Res	11	-1.095	541	550	-1.667	-1.260	477
5	Read & Res	12	-0.946	548	603	-1.516	-1.111	480
5	Read & Res	13	-0.803	555	749	-1.371	-0.971	482
5	Read & Res	14	-0.664	562	836	-1.231	-0.843	484
5	Read & Res	15	-0.528	568	977	-1.094	-0.722	486
5	Read & Res	16	-0.395	575	1093	-0.960	-0.598	488
5	Read & Res	17	-0.264	581	1336	-0.827	-0.487	490
5	Read & Res	18	-0.135	587	1380	-0.697	-0.374	492
5	Read & Res	19	-0.005	593	1581	-0.566	-0.267	494
5	Read & Res	20	0.124	600	1757	-0.436	-0.166	496
5	Read & Res	21	0.254	606	2072	-0.305	-0.063	497
5	Read & Res	22	0.385	612	2313	-0.173	0.037	499
5	Read & Res	23	0.518	618	2426	-0.039	0.143	501
5	Read & Res	24	0.654	625	2677	0.097	0.246	503
5	Read & Res	25	0.794	632	2785	0.238	0.348	504
5	Read & Res	26	0.938	639	3020	0.383	0.454	506
5	Read & Res	27	1.088	646	3134	0.533	0.562	508
5	Read & Res	28	1.245	653	3285	0.691	0.681	510
5	Read & Res	29	1.412	661	3240	0.858	0.802	512
5	Read & Res	30	1.591	670	3170	1.037	0.934	514
5	Read & Res	31	1.784	678	3061	1.232	1.065	516
5	Read & Res	32	1.999	689	2739	1.446	1.219	519
5	Read & Res	33	2.241	701	2366	1.689	1.403	522
5	Read & Res	34	2.525	715	1825	1.974	1.626	526
5	Read & Res	35	2.875	731	1134	2.323	1.872	530
5	Read & Res	36	3.343	754	613	2.792	2.190	535
5	Read & Res	37	4.101	790	233	3.550	2.637	543
5	Read & Res	38	5.352	849	52	4.801	2.904	547

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Read & Res	0	-5.306	333	0	-5.997	-3.549	542
6	Read & Res	1	-4.066	391	2	-4.758	-3.499	542
6	Read & Res	2	-3.322	426	0	-4.014	-3.388	544
6	Read & Res	3	-2.866	447	6	-3.558	-3.304	546
6	Read & Res	4	-2.528	463	12	-3.219	-3.242	547
6	Read & Res	5	-2.254	476	37	-2.944	-3.151	548
6	Read & Res	6	-2.021	487	80	-2.710	-2.958	551
6	Read & Res	7	-1.815	497	142	-2.504	-2.765	554
6	Read & Res	8	-1.630	505	212	-2.317	-2.441	560
6	Read & Res	9	-1.460	513	317	-2.145	-2.215	563
6	Read & Res	10	-1.301	521	367	-1.985	-2.027	566
6	Read & Res	11	-1.152	528	493	-1.834	-1.853	569
6	Read & Res	12	-1.009	535	609	-1.690	-1.685	572
6	Read & Res	13	-0.873	541	679	-1.552	-1.525	575
6	Read & Res	14	-0.742	547	735	-1.418	-1.392	577
6	Read & Res	15	-0.614	553	860	-1.288	-1.258	579
6	Read & Res	16	-0.489	559	1027	-1.161	-1.131	581
6	Read & Res	17	-0.366	565	1106	-1.036	-1.002	583
6	Read & Res	18	-0.245	571	1288	-0.913	-0.868	585
6	Read & Res	19	-0.124	577	1428	-0.790	-0.739	588
6	Read & Res	20	-0.004	582	1568	-0.668	-0.621	589
6	Read & Res	21	0.116	588	1742	-0.546	-0.491	592
6	Read & Res	22	0.236	594	1883	-0.423	-0.374	593
6	Read & Res	23	0.358	600	1905	-0.299	-0.249	596
6	Read & Res	24	0.482	605	2237	-0.174	-0.127	598
6	Read & Res	25	0.608	611	2432	-0.046	0.006	600
6	Read & Res	26	0.737	617	2656	0.085	0.144	602
6	Read & Res	27	0.869	624	2775	0.220	0.274	604
6	Read & Res	28	1.007	630	2766	0.359	0.418	606
6	Read & Res	29	1.151	637	2885	0.504	0.570	609
6	Read & Res	30	1.302	644	2886	0.657	0.726	611
6	Read & Res	31	1.462	652	3020	0.818	0.883	614
6	Read & Res	32	1.633	660	2833	0.991	1.055	617
6	Read & Res	33	1.820	668	2632	1.179	1.245	620
6	Read & Res	34	2.027	678	2362	1.387	1.449	623
6	Read & Res	35	2.261	689	2031	1.622	1.683	627
6	Read & Res	36	2.536	702	1531	1.897	1.936	631
6	Read & Res	37	2.874	718	1119	2.236	2.205	636
6	Read & Res	38	3.330	739	658	2.692	2.552	641
6	Read & Res	39	4.073	774	299	3.435	3.020	649
6	Read & Res	40	5.311	832	72	4.674	3.200	652

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Read & Res	0	-5.351	330	1	-6.172	-3.667	639
7	Read & Res	1	-4.116	387	0	-4.937	-3.535	641
7	Read & Res	2	-3.379	421	1	-4.201	-3.374	644
7	Read & Res	3	-2.931	442	0	-3.753	-3.299	645
7	Read & Res	4	-2.601	457	7	-3.423	-3.134	648
7	Read & Res	5	-2.336	470	14	-3.158	-3.006	650
7	Read & Res	6	-2.111	480	38	-2.933	-2.837	652
7	Read & Res	7	-1.914	489	68	-2.737	-2.644	656
7	Read & Res	8	-1.738	497	134	-2.561	-2.418	659
7	Read & Res	9	-1.577	505	208	-2.400	-2.213	663
7	Read & Res	10	-1.428	511	319	-2.251	-2.033	665
7	Read & Res	11	-1.289	518	409	-2.112	-1.891	668
7	Read & Res	12	-1.157	524	537	-1.980	-1.755	670
7	Read & Res	13	-1.031	530	623	-1.855	-1.641	672
7	Read & Res	14	-0.911	535	701	-1.734	-1.524	674
7	Read & Res	15	-0.794	541	794	-1.618	-1.403	676
7	Read & Res	16	-0.682	546	796	-1.505	-1.289	677
7	Read & Res	17	-0.571	551	857	-1.395	-1.183	679
7	Read & Res	18	-0.464	556	922	-1.287	-1.078	681
7	Read & Res	19	-0.357	561	966	-1.181	-0.981	682
7	Read & Res	20	-0.253	566	1029	-1.076	-0.870	684
7	Read & Res	21	-0.149	571	1029	-0.972	-0.766	686
7	Read & Res	22	-0.046	575	1187	-0.868	-0.666	688
7	Read & Res	23	0.057	580	1236	-0.765	-0.568	689
7	Read & Res	24	0.161	585	1334	-0.661	-0.475	691
7	Read & Res	25	0.264	590	1347	-0.557	-0.365	692
7	Read & Res	26	0.369	595	1511	-0.451	-0.274	694
7	Read & Res	27	0.475	600	1655	-0.345	-0.169	696
7	Read & Res	28	0.582	605	1710	-0.237	-0.068	697
7	Read & Res	29	0.692	610	1861	-0.126	0.032	699
7	Read & Res	30	0.804	615	2068	-0.013	0.147	701
7	Read & Res	31	0.920	620	2110	0.104	0.248	702
7	Read & Res	32	1.039	626	2309	0.225	0.356	704
7	Read & Res	33	1.164	632	2527	0.350	0.476	706
7	Read & Res	34	1.295	638	2637	0.482	0.589	708
7	Read & Res	35	1.433	643	2730	0.621	0.710	710
7	Read & Res	36	1.580	651	2802	0.770	0.849	712
7	Read & Res	37	1.738	658	2639	0.930	0.986	714
7	Read & Res	38	1.912	665	2625	1.105	1.153	717
7	Read & Res	39	2.106	675	2369	1.300	1.322	720
7	Read & Res	40	2.327	686	2016	1.522	1.512	723
7	Read & Res	41	2.588	698	1527	1.785	1.746	727
7	Read & Res	42	2.913	713	1005	2.111	2.017	731
7	Read & Res	43	3.355	733	523	2.554	2.355	736
7	Read & Res	44	4.084	767	245	3.285	2.777	743
7	Read & Res	45	5.312	824	39	4.515	3.145	749

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Read & Res	0	-5.568	306	1	-6.223	-3.607	742
8	Read & Res	1	-4.335	367	0	-4.992	-3.567	743
8	Read & Res	2	-3.601	403	1	-4.260	-3.526	743
8	Read & Res	3	-3.154	425	0	-3.816	-3.502	744
8	Read & Res	4	-2.825	441	5	-3.490	-3.447	744
8	Read & Res	5	-2.561	454	6	-3.228	-3.347	746
8	Read & Res	6	-2.338	465	14	-3.006	-3.217	748
8	Read & Res	7	-2.142	475	41	-2.812	-3.010	751
8	Read & Res	8	-1.967	484	66	-2.638	-2.739	756
8	Read & Res	9	-1.807	492	108	-2.480	-2.522	759
8	Read & Res	10	-1.660	499	178	-2.334	-2.345	762
8	Read & Res	11	-1.521	506	249	-2.197	-2.172	765
8	Read & Res	12	-1.391	512	308	-2.067	-2.005	767
8	Read & Res	13	-1.267	518	360	-1.944	-1.846	770
8	Read & Res	14	-1.149	524	392	-1.827	-1.701	772
8	Read & Res	15	-1.035	530	479	-1.713	-1.569	774
8	Read & Res	16	-0.924	535	626	-1.603	-1.447	776
8	Read & Res	17	-0.817	540	587	-1.497	-1.325	778
8	Read & Res	18	-0.712	546	740	-1.392	-1.210	780
8	Read & Res	19	-0.610	551	765	-1.290	-1.098	782
8	Read & Res	20	-0.509	556	864	-1.190	-0.993	783
8	Read & Res	21	-0.409	561	1006	-1.091	-0.894	785
8	Read & Res	22	-0.311	566	1037	-0.992	-0.800	787
8	Read & Res	23	-0.213	570	1151	-0.895	-0.705	788
8	Read & Res	24	-0.115	575	1269	-0.798	-0.613	790
8	Read & Res	25	-0.018	580	1419	-0.701	-0.526	791
8	Read & Res	26	0.079	585	1570	-0.603	-0.444	792
8	Read & Res	27	0.177	590	1705	-0.506	-0.353	794
8	Read & Res	28	0.275	595	1823	-0.407	-0.264	795
8	Read & Res	29	0.375	600	1966	-0.308	-0.172	797
8	Read & Res	30	0.476	605	1963	-0.207	-0.081	798
8	Read & Res	31	0.578	610	2154	-0.105	0.018	800
8	Read & Res	32	0.682	615	2239	-0.001	0.112	801
8	Read & Res	33	0.789	620	2289	0.106	0.202	802
8	Read & Res	34	0.899	626	2344	0.216	0.301	804
8	Read & Res	35	1.012	631	2345	0.329	0.403	806
8	Read & Res	36	1.129	637	2443	0.447	0.501	807
8	Read & Res	37	1.251	643	2408	0.569	0.610	809
8	Read & Res	38	1.378	649	2253	0.697	0.722	811
8	Read & Res	39	1.513	656	2185	0.832	0.841	813
8	Read & Res	40	1.656	663	2086	0.976	0.971	815
8	Read & Res	41	1.809	671	1853	1.129	1.100	817
8	Read & Res	42	1.975	679	1591	1.296	1.239	819
8	Read & Res	43	2.157	688	1428	1.479	1.391	821
8	Read & Res	44	2.361	698	1192	1.684	1.559	824
8	Read & Res	45	2.593	710	883	1.918	1.737	827

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Read & Res	46	2.868	724	640	2.194	1.934	830
8	Read & Res	47	3.210	741	422	2.537	2.183	834
8	Read & Res	48	3.672	764	217	3.000	2.465	838
8	Read & Res	49	4.424	801	87	3.754	2.845	845
8	Read & Res	50	5.672	863	17	5.002	3.063	848

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Math	0	-5.444	338	2	-5.957	-2.294	260
3	Math	1	-4.216	394	0	-4.727	-2.270	260
3	Math	2	-3.489	427	1	-3.997	-2.247	261
3	Math	3	-3.049	447	0	-3.554	-2.194	262
3	Math	4	-2.726	462	3	-3.229	-2.147	262
3	Math	5	-2.468	474	5	-2.968	-2.098	263
3	Math	6	-2.249	484	7	-2.748	-2.083	263
3	Math	7	-2.059	493	33	-2.556	-1.980	265
3	Math	8	-1.888	500	84	-2.383	-1.948	266
3	Math	9	-1.733	507	94	-2.227	-1.841	267
3	Math	10	-1.590	514	157	-2.082	-1.713	269
3	Math	11	-1.456	520	238	-1.947	-1.673	270
3	Math	12	-1.330	526	361	-1.819	-1.531	272
3	Math	13	-1.210	531	496	-1.698	-1.410	274
3	Math	14	-1.095	537	622	-1.582	-1.339	276
3	Math	15	-0.985	542	725	-1.471	-1.207	278
3	Math	16	-0.878	547	779	-1.363	-1.065	280
3	Math	17	-0.775	551	880	-1.259	-0.988	281
3	Math	18	-0.674	556	1020	-1.157	-0.889	283
3	Math	19	-0.575	561	1089	-1.057	-0.761	285
3	Math	20	-0.478	565	1232	-0.959	-0.634	287
3	Math	21	-0.382	569	1254	-0.863	-0.554	288
3	Math	22	-0.287	574	1370	-0.767	-0.470	290
3	Math	23	-0.193	578	1378	-0.673	-0.377	291
3	Math	24	-0.100	582	1480	-0.579	-0.276	293
3	Math	25	-0.006	587	1489	-0.485	-0.172	294
3	Math	26	0.087	591	1609	-0.391	-0.072	296
3	Math	27	0.181	595	1713	-0.297	0.012	297
3	Math	28	0.275	600	1727	-0.203	0.100	299
3	Math	29	0.370	604	1833	-0.107	0.187	300
3	Math	30	0.466	608	1831	-0.011	0.261	301
3	Math	31	0.564	613	1951	0.088	0.347	303
3	Math	32	0.663	617	1878	0.187	0.435	304
3	Math	33	0.765	622	2007	0.289	0.527	306
3	Math	34	0.869	627	2054	0.394	0.624	307
3	Math	35	0.977	632	2088	0.502	0.709	309
3	Math	36	1.088	637	2129	0.614	0.815	310
3	Math	37	1.204	641	2096	0.730	0.914	312
3	Math	38	1.326	647	2012	0.851	1.018	314
3	Math	39	1.454	653	2099	0.979	1.115	315
3	Math	40	1.589	659	2012	1.115	1.217	317
3	Math	41	1.735	665	1954	1.261	1.321	319
3	Math	42	1.892	673	1890	1.418	1.430	320
3	Math	43	2.065	681	1679	1.591	1.568	323
3	Math	44	2.258	690	1425	1.785	1.717	325
3	Math	45	2.480	700	1275	2.007	1.887	328

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Math	46	2.742	712	1033	2.269	2.034	330
3	Math	47	3.068	727	811	2.596	2.189	333
3	Math	48	3.513	747	546	3.040	2.368	335
3	Math	49	4.245	780	256	3.772	2.670	340
3	Math	50	5.476	836	69	5.004	2.832	343

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Math	0	-5.563	356	0	-5.593	-2.870	351
4	Math	1	-4.339	411	0	-4.368	-2.853	351
4	Math	2	-3.617	444	0	-3.645	-2.816	351
4	Math	3	-3.182	463	1	-3.209	-2.720	353
4	Math	4	-2.865	478	1	-2.891	-2.585	356
4	Math	5	-2.611	489	4	-2.636	-2.435	358
4	Math	6	-2.398	499	9	-2.422	-2.360	359
4	Math	7	-2.213	507	17	-2.236	-2.226	362
4	Math	8	-2.047	515	40	-2.069	-2.063	365
4	Math	9	-1.897	521	60	-1.918	-1.908	367
4	Math	10	-1.759	528	124	-1.779	-1.803	369
4	Math	11	-1.630	534	199	-1.649	-1.679	371
4	Math	12	-1.508	539	297	-1.527	-1.511	374
4	Math	13	-1.394	544	394	-1.412	-1.396	376
4	Math	14	-1.284	549	480	-1.301	-1.309	378
4	Math	15	-1.179	554	583	-1.195	-1.198	380
4	Math	16	-1.078	559	667	-1.093	-1.059	382
4	Math	17	-0.980	563	781	-0.994	-0.966	384
4	Math	18	-0.885	567	854	-0.898	-0.883	385
4	Math	19	-0.792	572	981	-0.804	-0.775	387
4	Math	20	-0.700	576	1002	-0.713	-0.651	389
4	Math	21	-0.611	579	1063	-0.622	-0.548	391
4	Math	22	-0.523	584	1138	-0.534	-0.464	393
4	Math	23	-0.436	588	1203	-0.446	-0.382	394
4	Math	24	-0.350	592	1274	-0.359	-0.286	396
4	Math	25	-0.265	596	1325	-0.273	-0.186	397
4	Math	26	-0.180	600	1402	-0.187	-0.104	399
4	Math	27	-0.096	603	1455	-0.102	-0.028	400
4	Math	28	-0.011	607	1461	-0.017	0.024	401
4	Math	29	0.073	611	1616	0.068	0.112	403
4	Math	30	0.158	615	1572	0.154	0.202	404
4	Math	31	0.243	619	1560	0.240	0.284	406
4	Math	32	0.329	623	1683	0.326	0.363	407
4	Math	33	0.415	627	1687	0.414	0.444	408
4	Math	34	0.503	631	1657	0.502	0.526	410
4	Math	35	0.592	635	1654	0.592	0.603	411
4	Math	36	0.682	639	1703	0.683	0.684	413
4	Math	37	0.774	643	1725	0.776	0.758	414
4	Math	38	0.869	647	1623	0.872	0.830	415
4	Math	39	0.966	652	1651	0.970	0.923	417
4	Math	40	1.066	656	1651	1.070	0.997	418
4	Math	41	1.169	661	1640	1.174	1.083	420
4	Math	42	1.276	666	1598	1.283	1.176	421
4	Math	43	1.388	671	1531	1.395	1.263	423
4	Math	44	1.505	676	1533	1.514	1.357	424
4	Math	45	1.630	682	1439	1.639	1.450	426

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Math	46	1.762	688	1452	1.772	1.546	428
4	Math	47	1.904	694	1349	1.915	1.647	429
4	Math	48	2.058	701	1291	2.070	1.757	431
4	Math	49	2.227	709	1152	2.240	1.853	433
4	Math	50	2.418	718	980	2.431	1.969	435
4	Math	51	2.636	727	860	2.650	2.095	437
4	Math	52	2.895	739	691	2.910	2.228	439
4	Math	53	3.218	754	518	3.234	2.388	442
4	Math	54	3.660	774	319	3.677	2.578	446
4	Math	55	4.389	807	170	4.407	2.794	449
4	Math	56	5.618	862	41	5.636	2.881	451

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Math	0	N/A	300	0	-10.064	-2.497	458
5	Math	1	-5.580	300	0	-6.766	-2.497	458
5	Math	2	-4.350	409	0	-4.205	-2.482	458
5	Math	3	-3.621	443	0	-3.481	-2.465	458
5	Math	4	-3.179	464	0	-3.040	-2.430	459
5	Math	5	-2.855	479	2	-2.716	-2.403	459
5	Math	6	-2.596	491	1	-2.457	-2.347	460
5	Math	7	-2.377	501	11	-2.238	-2.238	462
5	Math	8	-2.186	510	30	-2.047	-2.106	465
5	Math	9	-2.016	518	75	-1.877	-1.937	468
5	Math	10	-1.862	525	126	-1.722	-1.819	470
5	Math	11	-1.720	532	231	-1.580	-1.696	472
5	Math	12	-1.588	538	341	-1.447	-1.585	474
5	Math	13	-1.463	544	496	-1.323	-1.451	476
5	Math	14	-1.346	550	627	-1.205	-1.303	479
5	Math	15	-1.234	555	808	-1.093	-1.151	481
5	Math	16	-1.127	560	924	-0.985	-1.026	484
5	Math	17	-1.023	565	989	-0.882	-0.892	486
5	Math	18	-0.924	570	1068	-0.782	-0.804	488
5	Math	19	-0.827	574	1191	-0.684	-0.699	489
5	Math	20	-0.732	578	1272	-0.590	-0.612	491
5	Math	21	-0.640	583	1321	-0.497	-0.518	493
5	Math	22	-0.550	587	1428	-0.406	-0.420	494
5	Math	23	-0.461	591	1363	-0.317	-0.328	496
5	Math	24	-0.374	595	1518	-0.229	-0.235	498
5	Math	25	-0.287	600	1564	-0.142	-0.153	499
5	Math	26	-0.201	604	1483	-0.056	-0.070	500
5	Math	27	-0.116	608	1580	0.029	0.015	502
5	Math	28	-0.031	612	1578	0.115	0.095	503
5	Math	29	0.054	616	1649	0.200	0.175	505
5	Math	30	0.138	620	1645	0.285	0.256	506
5	Math	31	0.223	624	1607	0.370	0.330	508
5	Math	32	0.309	628	1665	0.456	0.412	509
5	Math	33	0.395	632	1711	0.543	0.488	510
5	Math	34	0.482	636	1609	0.630	0.567	512
5	Math	35	0.570	640	1601	0.718	0.648	513
5	Math	36	0.659	644	1603	0.808	0.725	514
5	Math	37	0.750	648	1633	0.900	0.808	516
5	Math	38	0.843	653	1503	0.993	0.883	517
5	Math	39	0.938	657	1480	1.089	0.971	519
5	Math	40	1.036	662	1508	1.188	1.053	520
5	Math	41	1.138	667	1419	1.289	1.139	522
5	Math	42	1.243	672	1410	1.395	1.225	523
5	Math	43	1.352	677	1298	1.505	1.320	525
5	Math	44	1.467	682	1276	1.620	1.412	527
5	Math	45	1.588	688	1237	1.742	1.510	528

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Math	46	1.717	694	1146	1.872	1.611	530
5	Math	47	1.856	700	1022	2.011	1.706	532
5	Math	48	2.006	708	967	2.162	1.791	533
5	Math	49	2.172	715	834	2.328	1.881	535
5	Math	50	2.358	724	711	2.514	1.994	537
5	Math	51	2.571	734	565	2.728	2.140	539
5	Math	52	2.825	746	455	2.983	2.277	542
5	Math	53	3.143	761	353	3.302	2.394	544
5	Math	54	3.579	781	224	3.737	2.543	546
5	Math	55	4.301	815	124	4.461	2.773	551
5	Math	56	5.526	873	37	5.685	2.816	551

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Math	0	N/A	300	0	-10.101	-2.679	555
6	Math	1	-5.587	300	0	-6.872	-2.679	555
6	Math	2	-4.361	407	0	-4.378	-2.676	555
6	Math	3	-3.638	440	0	-3.660	-2.651	555
6	Math	4	-3.203	460	0	-3.224	-2.625	556
6	Math	5	-2.885	474	0	-2.906	-2.588	556
6	Math	6	-2.632	486	3	-2.652	-2.579	556
6	Math	7	-2.420	495	6	-2.439	-2.534	557
6	Math	8	-2.236	504	14	-2.255	-2.447	559
6	Math	9	-2.072	511	24	-2.090	-2.360	560
6	Math	10	-1.924	518	58	-1.942	-2.268	562
6	Math	11	-1.789	524	103	-1.806	-2.146	564
6	Math	12	-1.663	530	162	-1.680	-2.016	566
6	Math	13	-1.545	535	263	-1.561	-1.864	569
6	Math	14	-1.434	541	371	-1.450	-1.715	571
6	Math	15	-1.329	545	507	-1.344	-1.568	574
6	Math	16	-1.228	550	640	-1.243	-1.427	576
6	Math	17	-1.131	554	801	-1.146	-1.306	579
6	Math	18	-1.038	559	892	-1.053	-1.189	581
6	Math	19	-0.948	563	921	-0.962	-1.077	583
6	Math	20	-0.861	567	1011	-0.875	-0.965	585
6	Math	21	-0.776	571	1070	-0.789	-0.857	586
6	Math	22	-0.692	574	1149	-0.706	-0.758	588
6	Math	23	-0.611	578	1118	-0.624	-0.661	590
6	Math	24	-0.531	582	1130	-0.543	-0.572	591
6	Math	25	-0.452	585	1272	-0.464	-0.482	593
6	Math	26	-0.374	589	1263	-0.386	-0.400	594
6	Math	27	-0.297	593	1249	-0.309	-0.311	596
6	Math	28	-0.220	596	1257	-0.232	-0.219	598
6	Math	29	-0.145	600	1222	-0.156	-0.132	599
6	Math	30	-0.069	603	1296	-0.081	-0.048	600
6	Math	31	0.007	606	1386	-0.005	0.037	602
6	Math	32	0.082	610	1379	0.071	0.115	603
6	Math	33	0.157	613	1384	0.146	0.189	605
6	Math	34	0.233	617	1435	0.222	0.265	606
6	Math	35	0.309	620	1407	0.299	0.338	607
6	Math	36	0.386	624	1398	0.376	0.410	608
6	Math	37	0.464	627	1472	0.453	0.487	610
6	Math	38	0.542	631	1417	0.532	0.559	611
6	Math	39	0.622	634	1383	0.612	0.634	612
6	Math	40	0.703	638	1342	0.693	0.712	614
6	Math	41	0.785	642	1347	0.775	0.778	615
6	Math	42	0.870	646	1391	0.860	0.853	616
6	Math	43	0.956	650	1328	0.947	0.928	617
6	Math	44	1.046	654	1343	1.036	1.003	619
6	Math	45	1.138	658	1285	1.128	1.080	620

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Math	46	1.233	662	1302	1.224	1.167	622
6	Math	47	1.333	667	1242	1.323	1.237	623
6	Math	48	1.437	672	1254	1.428	1.318	624
6	Math	49	1.546	677	1252	1.537	1.393	626
6	Math	50	1.662	681	1135	1.654	1.489	627
6	Math	51	1.786	688	1127	1.778	1.589	629
6	Math	52	1.920	694	1050	1.911	1.689	631
6	Math	53	2.065	700	1029	2.057	1.785	632
6	Math	54	2.226	708	853	2.219	1.882	634
6	Math	55	2.408	716	763	2.400	2.004	636
6	Math	56	2.617	726	662	2.609	2.145	639
6	Math	57	2.866	737	598	2.859	2.334	642
6	Math	58	3.180	751	447	3.173	2.437	644
6	Math	59	3.612	771	253	3.605	2.625	647
6	Math	60	4.330	804	155	4.324	2.877	651
6	Math	61	5.552	859	51	5.546	3.072	655

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Math	0	-5.555	338	1	-5.373	-2.676	654
7	Math	1	-4.333	398	1	-4.151	-2.622	655
7	Math	2	-3.614	434	1	-3.432	-2.570	656
7	Math	3	-3.183	455	0	-3.001	-2.510	657
7	Math	4	-2.869	470	0	-2.687	-2.455	658
7	Math	5	-2.620	483	1	-2.437	-2.363	660
7	Math	6	-2.411	493	5	-2.228	-2.271	661
7	Math	7	-2.230	502	6	-2.047	-2.158	663
7	Math	8	-2.069	510	12	-1.886	-2.031	665
7	Math	9	-1.924	517	36	-1.741	-1.905	668
7	Math	10	-1.791	524	76	-1.608	-1.766	670
7	Math	11	-1.667	530	120	-1.484	-1.657	672
7	Math	12	-1.552	535	190	-1.369	-1.544	674
7	Math	13	-1.443	541	313	-1.260	-1.430	676
7	Math	14	-1.340	546	475	-1.156	-1.317	678
7	Math	15	-1.241	551	619	-1.057	-1.205	680
7	Math	16	-1.146	555	795	-0.963	-1.096	682
7	Math	17	-1.055	560	907	-0.871	-0.994	684
7	Math	18	-0.967	564	1035	-0.783	-0.887	686
7	Math	19	-0.881	569	1168	-0.697	-0.789	687
7	Math	20	-0.798	573	1215	-0.614	-0.687	689
7	Math	21	-0.716	577	1264	-0.532	-0.594	691
7	Math	22	-0.637	581	1410	-0.452	-0.502	692
7	Math	23	-0.558	584	1398	-0.374	-0.412	694
7	Math	24	-0.481	588	1482	-0.297	-0.329	695
7	Math	25	-0.405	592	1535	-0.220	-0.246	697
7	Math	26	-0.330	596	1613	-0.145	-0.162	698
7	Math	27	-0.255	600	1558	-0.071	-0.075	700
7	Math	28	-0.181	603	1667	0.004	0.001	701
7	Math	29	-0.108	607	1653	0.077	0.085	703
7	Math	30	-0.034	610	1544	0.151	0.161	704
7	Math	31	0.039	614	1597	0.224	0.240	705
7	Math	32	0.113	618	1600	0.298	0.322	707
7	Math	33	0.186	621	1545	0.371	0.396	708
7	Math	34	0.260	625	1577	0.445	0.475	710
7	Math	35	0.335	629	1442	0.520	0.552	711
7	Math	36	0.410	632	1412	0.595	0.625	712
7	Math	37	0.485	636	1385	0.671	0.698	714
7	Math	38	0.562	640	1340	0.748	0.772	715
7	Math	39	0.640	644	1322	0.826	0.839	716
7	Math	40	0.720	648	1273	0.906	0.916	717
7	Math	41	0.801	651	1198	0.987	0.986	719
7	Math	42	0.884	656	1119	1.070	1.074	720
7	Math	43	0.969	660	1102	1.155	1.152	722
7	Math	44	1.057	664	1106	1.243	1.229	723
7	Math	45	1.148	669	1040	1.334	1.314	724

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Math	46	1.242	673	990	1.428	1.384	726
7	Math	47	1.340	678	960	1.526	1.460	727
7	Math	48	1.443	683	950	1.629	1.548	729
7	Math	49	1.551	689	925	1.738	1.637	730
7	Math	50	1.666	694	852	1.852	1.719	732
7	Math	51	1.789	700	734	1.975	1.822	733
7	Math	52	1.921	707	691	2.108	1.928	735
7	Math	53	2.066	714	669	2.252	2.031	737
7	Math	54	2.226	722	600	2.413	2.145	739
7	Math	55	2.406	731	511	2.593	2.234	741
7	Math	56	2.614	741	479	2.801	2.351	743
7	Math	57	2.863	753	377	3.050	2.477	745
7	Math	58	3.176	769	282	3.363	2.734	749
7	Math	59	3.606	790	183	3.793	2.867	752
7	Math	60	4.324	826	120	4.511	3.002	754
7	Math	61	5.545	886	42	5.733	3.088	756

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Math	0	-5.554	356	0	-5.301	-2.897	755
8	Math	1	-4.333	413	1	-4.081	-2.833	756
8	Math	2	-3.616	447	2	-3.364	-2.792	756
8	Math	3	-3.187	467	0	-2.935	-2.698	758
8	Math	4	-2.875	482	1	-2.623	-2.642	759
8	Math	5	-2.628	494	4	-2.376	-2.543	761
8	Math	6	-2.421	503	11	-2.169	-2.418	763
8	Math	7	-2.242	512	22	-1.989	-2.227	766
8	Math	8	-2.083	519	43	-1.831	-2.072	769
8	Math	9	-1.940	526	102	-1.687	-1.938	771
8	Math	10	-1.809	532	177	-1.556	-1.773	774
8	Math	11	-1.687	538	319	-1.435	-1.617	776
8	Math	12	-1.574	543	469	-1.321	-1.492	778
8	Math	13	-1.467	548	631	-1.214	-1.372	780
8	Math	14	-1.366	553	877	-1.113	-1.247	783
8	Math	15	-1.269	558	1130	-1.016	-1.128	785
8	Math	16	-1.177	562	1344	-0.924	-1.020	786
8	Math	17	-1.088	566	1539	-0.835	-0.929	788
8	Math	18	-1.002	570	1530	-0.749	-0.838	789
8	Math	19	-0.918	574	1604	-0.665	-0.752	791
8	Math	20	-0.837	578	1601	-0.584	-0.666	792
8	Math	21	-0.758	582	1657	-0.505	-0.581	794
8	Math	22	-0.681	586	1626	-0.427	-0.504	795
8	Math	23	-0.605	589	1566	-0.351	-0.426	796
8	Math	24	-0.531	593	1570	-0.277	-0.349	798
8	Math	25	-0.458	596	1449	-0.203	-0.283	799
8	Math	26	-0.385	600	1447	-0.131	-0.216	800
8	Math	27	-0.313	603	1419	-0.059	-0.157	801
8	Math	28	-0.242	606	1347	0.013	-0.088	802
8	Math	29	-0.172	610	1276	0.084	-0.015	803
8	Math	30	-0.102	613	1334	0.154	0.050	805
8	Math	31	-0.032	616	1190	0.224	0.110	806
8	Math	32	0.038	620	1233	0.294	0.171	807
8	Math	33	0.108	623	1200	0.365	0.230	808
8	Math	34	0.178	626	1175	0.435	0.294	809
8	Math	35	0.249	629	1162	0.506	0.352	810
8	Math	36	0.320	633	1161	0.577	0.409	811
8	Math	37	0.391	636	1120	0.649	0.466	812
8	Math	38	0.463	640	1097	0.721	0.522	813
8	Math	39	0.536	643	1046	0.795	0.586	814
8	Math	40	0.610	647	1037	0.869	0.643	815
8	Math	41	0.686	650	1099	0.945	0.698	815
8	Math	42	0.763	654	982	1.022	0.751	816
8	Math	43	0.841	658	985	1.101	0.811	817
8	Math	44	0.922	661	949	1.182	0.874	818
8	Math	45	1.004	665	885	1.265	0.928	819

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Math	46	1.090	669	904	1.351	0.992	820
8	Math	47	1.178	674	900	1.439	1.054	822
8	Math	48	1.270	678	788	1.531	1.109	822
8	Math	49	1.366	682	805	1.628	1.175	824
8	Math	50	1.466	687	725	1.729	1.248	825
8	Math	51	1.573	692	717	1.835	1.313	826
8	Math	52	1.685	697	647	1.948	1.381	827
8	Math	53	1.806	703	674	2.069	1.453	828
8	Math	54	1.936	709	607	2.199	1.527	830
8	Math	55	2.079	716	565	2.342	1.617	831
8	Math	56	2.236	724	488	2.500	1.710	833
8	Math	57	2.415	732	425	2.678	1.809	834
8	Math	58	2.621	742	343	2.885	1.922	836
8	Math	59	2.867	753	322	3.131	2.047	838
8	Math	60	3.178	768	235	3.442	2.200	841
8	Math	61	3.606	788	154	3.871	2.361	844
8	Math	62	4.322	822	95	4.587	2.755	850
8	Math	63	5.542	879	24	5.806	2.900	853

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Science	0	-5.424	300	16	-5.873	N/A	236
3	Science	1	-4.183	353	22	-4.632	N/A	236
3	Science	2	-3.438	393	21	-3.886	N/A	236
3	Science	3	-2.982	418	16	-3.430	N/A	236
3	Science	4	-2.644	436	15	-3.091	N/A	241
3	Science	5	-2.371	451	15	-2.818	N/A	246
3	Science	6	-2.140	463	20	-2.587	N/A	250
3	Science	7	-1.937	474	40	-2.384	N/A	254
3	Science	8	-1.755	484	78	-2.202	N/A	257
3	Science	9	-1.589	493	112	-2.035	N/A	260
3	Science	10	-1.435	501	153	-1.881	N/A	263
3	Science	11	-1.291	509	199	-1.737	N/A	266
3	Science	12	-1.156	517	265	-1.602	N/A	268
3	Science	13	-1.026	523	335	-1.472	N/A	271
3	Science	14	-0.903	530	413	-1.349	N/A	273
3	Science	15	-0.784	536	462	-1.230	N/A	275
3	Science	16	-0.669	543	498	-1.115	N/A	278
3	Science	17	-0.557	549	591	-1.003	N/A	280
3	Science	18	-0.448	555	604	-0.894	N/A	282
3	Science	19	-0.340	560	750	-0.786	N/A	284
3	Science	20	-0.235	566	787	-0.681	N/A	286
3	Science	21	-0.131	572	872	-0.577	N/A	288
3	Science	22	-0.027	577	965	-0.473	N/A	290
3	Science	23	0.076	583	1017	-0.370	N/A	292
3	Science	24	0.179	588	1151	-0.268	N/A	293
3	Science	25	0.282	594	1169	-0.165	N/A	295
3	Science	26	0.386	600	1295	-0.061	N/A	297
3	Science	27	0.491	605	1300	0.044	N/A	299
3	Science	28	0.598	611	1313	0.150	N/A	301
3	Science	29	0.707	617	1353	0.259	N/A	303
3	Science	30	0.818	623	1352	0.370	N/A	305
3	Science	31	0.933	629	1355	0.484	N/A	308
3	Science	32	1.051	635	1331	0.602	N/A	310
3	Science	33	1.175	642	1345	0.725	N/A	312
3	Science	34	1.304	648	1262	0.854	N/A	314
3	Science	35	1.441	656	1116	0.990	N/A	317
3	Science	36	1.587	663	963	1.135	N/A	320
3	Science	37	1.745	672	869	1.292	N/A	323
3	Science	38	1.918	682	700	1.464	N/A	326
3	Science	39	2.111	692	530	1.656	N/A	329
3	Science	40	2.331	704	412	1.876	N/A	334
3	Science	41	2.592	718	277	2.136	N/A	338
3	Science	42	2.918	735	142	2.460	N/A	345
3	Science	43	3.360	759	69	2.901	N/A	353
3	Science	44	4.090	798	15	3.630	N/A	364
3	Science	45	5.320	864	4	4.859	N/A	364

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Science	0	-5.309	326	0	-5.687	N/A	336
4	Science	1	-4.080	386	1	-4.457	N/A	336
4	Science	2	-3.351	421	0	-3.727	N/A	336
4	Science	3	-2.909	442	0	-3.284	N/A	336
4	Science	4	-2.584	458	3	-2.959	N/A	339
4	Science	5	-2.324	470	14	-2.698	N/A	344
4	Science	6	-2.104	481	20	-2.477	N/A	348
4	Science	7	-1.911	490	47	-2.283	N/A	352
4	Science	8	-1.738	499	118	-2.110	N/A	356
4	Science	9	-1.580	506	180	-1.952	N/A	359
4	Science	10	-1.434	514	294	-1.805	N/A	362
4	Science	11	-1.297	520	372	-1.668	N/A	364
4	Science	12	-1.167	526	437	-1.538	N/A	367
4	Science	13	-1.044	532	595	-1.414	N/A	369
4	Science	14	-0.925	538	658	-1.295	N/A	372
4	Science	15	-0.810	544	666	-1.180	N/A	374
4	Science	16	-0.699	549	873	-1.069	N/A	376
4	Science	17	-0.590	554	886	-0.960	N/A	378
4	Science	18	-0.483	559	1062	-0.853	N/A	380
4	Science	19	-0.378	565	1164	-0.748	N/A	382
4	Science	20	-0.274	570	1275	-0.644	N/A	384
4	Science	21	-0.171	575	1326	-0.541	N/A	386
4	Science	22	-0.068	580	1563	-0.438	N/A	388
4	Science	23	0.036	584	1558	-0.336	N/A	390
4	Science	24	0.139	589	1689	-0.233	N/A	392
4	Science	25	0.243	594	1831	-0.129	N/A	394
4	Science	26	0.348	600	1981	-0.024	N/A	397
4	Science	27	0.455	605	2076	0.082	N/A	399
4	Science	28	0.564	610	2142	0.190	N/A	401
4	Science	29	0.675	615	2285	0.301	N/A	403
4	Science	30	0.789	621	2437	0.414	N/A	405
4	Science	31	0.907	626	2495	0.531	N/A	407
4	Science	32	1.029	632	2561	0.653	N/A	410
4	Science	33	1.157	638	2501	0.779	N/A	412
4	Science	34	1.291	645	2524	0.912	N/A	415
4	Science	35	1.432	651	2488	1.053	N/A	418
4	Science	36	1.583	659	2365	1.203	N/A	421
4	Science	37	1.746	667	2373	1.366	N/A	424
4	Science	38	1.925	675	2080	1.543	N/A	427
4	Science	39	2.124	685	1834	1.741	N/A	431
4	Science	40	2.350	696	1505	1.967	N/A	436
4	Science	41	2.617	708	1166	2.233	N/A	441
4	Science	42	2.949	724	886	2.563	N/A	447
4	Science	43	3.398	746	526	3.011	N/A	456
4	Science	44	4.134	782	231	3.747	N/A	464
4	Science	45	5.368	841	68	4.980	N/A	464

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Science	0	-5.414	300	6	-5.507	N/A	436
5	Science	1	-4.187	352	18	-4.279	N/A	436
5	Science	2	-3.459	395	16	-3.552	N/A	436
5	Science	3	-3.020	421	6	-3.112	N/A	436
5	Science	4	-2.697	440	10	-2.790	N/A	439
5	Science	5	-2.439	456	7	-2.532	N/A	445
5	Science	6	-2.221	468	10	-2.314	N/A	449
5	Science	7	-2.031	480	16	-2.124	N/A	454
5	Science	8	-1.862	490	27	-1.955	N/A	457
5	Science	9	-1.707	499	50	-1.800	N/A	461
5	Science	10	-1.564	507	69	-1.658	N/A	464
5	Science	11	-1.431	515	142	-1.525	N/A	467
5	Science	12	-1.306	522	201	-1.400	N/A	469
5	Science	13	-1.187	529	253	-1.281	N/A	472
5	Science	14	-1.073	536	321	-1.167	N/A	474
5	Science	15	-0.964	543	428	-1.058	N/A	477
5	Science	16	-0.858	549	422	-0.953	N/A	479
5	Science	17	-0.756	555	528	-0.850	N/A	481
5	Science	18	-0.656	561	610	-0.750	N/A	483
5	Science	19	-0.558	566	701	-0.653	N/A	485
5	Science	20	-0.462	572	797	-0.557	N/A	487
5	Science	21	-0.368	578	862	-0.463	N/A	489
5	Science	22	-0.274	583	899	-0.369	N/A	491
5	Science	23	-0.182	589	929	-0.277	N/A	493
5	Science	24	-0.090	594	1004	-0.185	N/A	495
5	Science	25	0.002	600	1080	-0.093	N/A	497
5	Science	26	0.094	605	1116	-0.002	N/A	499
5	Science	27	0.186	610	1118	0.090	N/A	501
5	Science	28	0.279	616	1167	0.183	N/A	503
5	Science	29	0.372	621	1162	0.276	N/A	505
5	Science	30	0.467	627	1224	0.370	N/A	507
5	Science	31	0.562	632	1199	0.466	N/A	510
5	Science	32	0.660	638	1188	0.563	N/A	512
5	Science	33	0.760	644	1134	0.662	N/A	514
5	Science	34	0.862	650	1075	0.764	N/A	516
5	Science	35	0.967	656	1004	0.869	N/A	518
5	Science	36	1.076	663	897	0.978	N/A	521
5	Science	37	1.189	669	873	1.091	N/A	523
5	Science	38	1.308	676	762	1.209	N/A	526
5	Science	39	1.432	684	705	1.334	N/A	528
5	Science	40	1.565	692	584	1.466	N/A	531
5	Science	41	1.707	700	432	1.607	N/A	534
5	Science	42	1.860	709	432	1.761	N/A	538
5	Science	43	2.029	719	300	1.929	N/A	541
5	Science	44	2.218	730	192	2.118	N/A	545
5	Science	45	2.434	743	160	2.334	N/A	550

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Science	46	2.691	758	90	2.591	N/A	555
5	Science	47	3.012	777	48	2.911	N/A	562
5	Science	48	3.450	803	22	3.349	N/A	564
5	Science	49	4.176	845	12	4.074	N/A	564
5	Science	50	5.402	900	0	5.300	N/A	564

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Science	0	-5.497	309	4	-5.637	N/A	536
6	Science	1	-4.269	371	13	-4.410	N/A	536
6	Science	2	-3.543	408	8	-3.684	N/A	536
6	Science	3	-3.104	431	12	-3.245	N/A	536
6	Science	4	-2.784	447	10	-2.925	N/A	536
6	Science	5	-2.527	460	7	-2.669	N/A	536
6	Science	6	-2.312	471	7	-2.453	N/A	539
6	Science	7	-2.125	481	13	-2.266	N/A	543
6	Science	8	-1.958	489	14	-2.100	N/A	547
6	Science	9	-1.807	497	38	-1.948	N/A	551
6	Science	10	-1.668	504	66	-1.810	N/A	554
6	Science	11	-1.538	510	100	-1.681	N/A	557
6	Science	12	-1.417	517	135	-1.560	N/A	560
6	Science	13	-1.303	522	179	-1.445	N/A	563
6	Science	14	-1.194	528	220	-1.336	N/A	565
6	Science	15	-1.090	533	307	-1.232	N/A	568
6	Science	16	-0.990	538	340	-1.132	N/A	570
6	Science	17	-0.893	543	348	-1.036	N/A	572
6	Science	18	-0.799	548	419	-0.942	N/A	575
6	Science	19	-0.708	553	451	-0.851	N/A	577
6	Science	20	-0.619	557	514	-0.762	N/A	579
6	Science	21	-0.532	562	536	-0.675	N/A	581
6	Science	22	-0.446	566	577	-0.589	N/A	583
6	Science	23	-0.361	570	609	-0.505	N/A	585
6	Science	24	-0.278	574	662	-0.421	N/A	587
6	Science	25	-0.195	579	692	-0.339	N/A	589
6	Science	26	-0.113	583	740	-0.257	N/A	591
6	Science	27	-0.031	587	731	-0.175	N/A	593
6	Science	28	0.051	591	800	-0.093	N/A	594
6	Science	29	0.132	595	768	-0.012	N/A	596
6	Science	30	0.214	600	779	0.070	N/A	598
6	Science	31	0.297	604	850	0.152	N/A	600
6	Science	32	0.380	608	877	0.235	N/A	602
6	Science	33	0.464	612	853	0.319	N/A	604
6	Science	34	0.549	616	926	0.404	N/A	606
6	Science	35	0.635	621	894	0.490	N/A	608
6	Science	36	0.723	625	859	0.578	N/A	610
6	Science	37	0.813	630	889	0.668	N/A	612
6	Science	38	0.906	635	852	0.760	N/A	615
6	Science	39	1.001	639	959	0.856	N/A	617
6	Science	40	1.099	644	901	0.954	N/A	619
6	Science	41	1.201	650	858	1.056	N/A	622
6	Science	42	1.308	655	834	1.163	N/A	624
6	Science	43	1.420	661	817	1.275	N/A	627
6	Science	44	1.539	667	764	1.393	N/A	629
6	Science	45	1.665	673	736	1.519	N/A	632

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Science	46	1.801	680	674	1.655	N/A	636
6	Science	47	1.949	687	594	1.803	N/A	639
6	Science	48	2.112	696	506	1.966	N/A	643
6	Science	49	2.295	705	395	2.149	N/A	647
6	Science	50	2.507	716	291	2.360	N/A	652
6	Science	51	2.758	729	235	2.612	N/A	658
6	Science	52	3.074	745	153	2.927	N/A	664
6	Science	53	3.507	767	95	3.361	N/A	664
6	Science	54	4.228	804	19	4.081	N/A	664
6	Science	55	5.451	866	9	5.304	N/A	664

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Science	0	-5.431	302	0	-5.510	N/A	636
7	Science	1	-4.207	369	0	-4.287	N/A	636
7	Science	2	-3.486	408	1	-3.566	N/A	636
7	Science	3	-3.053	431	0	-3.133	N/A	636
7	Science	4	-2.737	449	0	-2.817	N/A	642
7	Science	5	-2.485	462	1	-2.565	N/A	647
7	Science	6	-2.273	474	6	-2.354	N/A	651
7	Science	7	-2.089	484	17	-2.171	N/A	655
7	Science	8	-1.926	493	34	-2.007	N/A	658
7	Science	9	-1.778	501	67	-1.860	N/A	661
7	Science	10	-1.642	508	126	-1.724	N/A	664
7	Science	11	-1.515	515	205	-1.597	N/A	666
7	Science	12	-1.397	521	259	-1.479	N/A	668
7	Science	13	-1.284	527	383	-1.367	N/A	671
7	Science	14	-1.178	533	482	-1.260	N/A	673
7	Science	15	-1.076	539	573	-1.158	N/A	675
7	Science	16	-0.977	544	676	-1.060	N/A	677
7	Science	17	-0.882	549	761	-0.966	N/A	679
7	Science	18	-0.790	554	864	-0.874	N/A	681
7	Science	19	-0.701	559	889	-0.784	N/A	682
7	Science	20	-0.613	564	890	-0.697	N/A	684
7	Science	21	-0.527	568	1040	-0.611	N/A	686
7	Science	22	-0.443	573	1045	-0.526	N/A	687
7	Science	23	-0.359	577	1213	-0.443	N/A	689
7	Science	24	-0.277	582	1219	-0.361	N/A	691
7	Science	25	-0.196	586	1277	-0.280	N/A	692
7	Science	26	-0.115	591	1354	-0.199	N/A	694
7	Science	27	-0.034	595	1411	-0.118	N/A	696
7	Science	28	0.046	600	1540	-0.038	N/A	697
7	Science	29	0.127	604	1548	0.043	N/A	699
7	Science	30	0.208	608	1638	0.123	N/A	700
7	Science	31	0.289	613	1627	0.204	N/A	702
7	Science	32	0.371	617	1750	0.286	N/A	704
7	Science	33	0.453	622	1843	0.369	N/A	705
7	Science	34	0.537	626	1940	0.453	N/A	707
7	Science	35	0.622	631	1879	0.538	N/A	709
7	Science	36	0.709	635	1956	0.625	N/A	710
7	Science	37	0.798	640	1982	0.713	N/A	712
7	Science	38	0.889	645	1942	0.805	N/A	714
7	Science	39	0.983	650	1908	0.898	N/A	716
7	Science	40	1.080	656	1760	0.995	N/A	718
7	Science	41	1.181	661	1887	1.096	N/A	720
7	Science	42	1.286	667	1789	1.202	N/A	722
7	Science	43	1.397	673	1638	1.312	N/A	724
7	Science	44	1.514	679	1589	1.429	N/A	726
7	Science	45	1.639	685	1376	1.554	N/A	729

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Science	46	1.773	693	1196	1.689	N/A	731
7	Science	47	1.920	701	1074	1.835	N/A	734
7	Science	48	2.081	710	855	1.997	N/A	738
7	Science	49	2.263	720	675	2.179	N/A	741
7	Science	50	2.473	731	513	2.388	N/A	745
7	Science	51	2.722	745	364	2.638	N/A	750
7	Science	52	3.037	762	253	2.952	N/A	757
7	Science	53	3.468	785	118	3.384	N/A	764
7	Science	54	4.187	824	49	4.103	N/A	764
7	Science	55	5.409	891	8	5.324	N/A	764

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Science	0	-5.509	300	11	-5.671	N/A	736
8	Science	1	-4.287	363	19	-4.450	N/A	736
8	Science	2	-3.569	402	12	-3.732	N/A	736
8	Science	3	-3.138	424	11	-3.302	N/A	736
8	Science	4	-2.825	441	12	-2.989	N/A	738
8	Science	5	-2.576	454	6	-2.741	N/A	743
8	Science	6	-2.367	466	10	-2.533	N/A	747
8	Science	7	-2.187	475	3	-2.353	N/A	751
8	Science	8	-2.027	484	9	-2.193	N/A	754
8	Science	9	-1.882	491	15	-2.049	N/A	757
8	Science	10	-1.749	498	33	-1.916	N/A	760
8	Science	11	-1.626	505	60	-1.794	N/A	762
8	Science	12	-1.511	511	88	-1.679	N/A	765
8	Science	13	-1.403	517	121	-1.571	N/A	767
8	Science	14	-1.300	522	164	-1.469	N/A	769
8	Science	15	-1.201	528	213	-1.371	N/A	771
8	Science	16	-1.107	533	265	-1.277	N/A	773
8	Science	17	-1.016	537	332	-1.186	N/A	775
8	Science	18	-0.928	542	387	-1.099	N/A	776
8	Science	19	-0.843	547	450	-1.014	N/A	778
8	Science	20	-0.760	551	467	-0.931	N/A	780
8	Science	21	-0.679	555	524	-0.850	N/A	781
8	Science	22	-0.599	560	564	-0.771	N/A	783
8	Science	23	-0.521	564	556	-0.693	N/A	784
8	Science	24	-0.444	568	608	-0.617	N/A	786
8	Science	25	-0.368	572	608	-0.541	N/A	788
8	Science	26	-0.293	576	618	-0.466	N/A	789
8	Science	27	-0.219	580	707	-0.392	N/A	791
8	Science	28	-0.145	584	675	-0.318	N/A	792
8	Science	29	-0.071	588	704	-0.245	N/A	794
8	Science	30	0.002	592	769	-0.172	N/A	795
8	Science	31	0.076	596	729	-0.098	N/A	796
8	Science	32	0.149	600	788	-0.025	N/A	798
8	Science	33	0.223	603	732	0.049	N/A	799
8	Science	34	0.298	607	720	0.123	N/A	801
8	Science	35	0.373	611	809	0.198	N/A	802
8	Science	36	0.448	615	808	0.274	N/A	804
8	Science	37	0.525	620	818	0.350	N/A	806
8	Science	38	0.603	624	801	0.428	N/A	807
8	Science	39	0.682	628	841	0.507	N/A	809
8	Science	40	0.763	632	851	0.588	N/A	810
8	Science	41	0.846	637	779	0.670	N/A	812
8	Science	42	0.931	641	841	0.755	N/A	814
8	Science	43	1.018	646	805	0.843	N/A	815
8	Science	44	1.108	650	829	0.933	N/A	817
8	Science	45	1.202	656	780	1.027	N/A	819

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Science	46	1.300	661	724	1.125	N/A	821
8	Science	47	1.403	666	680	1.227	N/A	823
8	Science	48	1.511	671	684	1.335	N/A	825
8	Science	49	1.625	678	598	1.449	N/A	828
8	Science	50	1.747	685	553	1.572	N/A	830
8	Science	51	1.880	692	467	1.704	N/A	833
8	Science	52	2.024	700	393	1.848	N/A	836
8	Science	53	2.183	708	311	2.008	N/A	839
8	Science	54	2.363	718	240	2.188	N/A	843
8	Science	55	2.571	729	176	2.396	N/A	847
8	Science	56	2.819	742	96	2.644	N/A	852
8	Science	57	3.132	759	72	2.957	N/A	858
8	Science	58	3.562	782	32	3.387	N/A	864
8	Science	59	4.280	820	16	4.104	N/A	864
8	Science	60	5.501	885	0	5.325	N/A	864

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
3	Soc. Studies	0	-5.248	360	6	-4.784	N/A	236
3	Soc. Studies	1	-4.017	418	8	-3.549	N/A	236
3	Soc. Studies	2	-3.286	453	2	-2.813	N/A	246
3	Soc. Studies	3	-2.843	475	5	-2.365	N/A	253
3	Soc. Studies	4	-2.517	490	9	-2.037	N/A	259
3	Soc. Studies	5	-2.257	503	16	-1.773	N/A	263
3	Soc. Studies	6	-2.037	513	34	-1.551	N/A	267
3	Soc. Studies	7	-1.845	523	74	-1.357	N/A	270
3	Soc. Studies	8	-1.673	531	120	-1.183	N/A	273
3	Soc. Studies	9	-1.517	538	219	-1.025	N/A	276
3	Soc. Studies	10	-1.373	545	314	-0.879	N/A	278
3	Soc. Studies	11	-1.238	552	380	-0.743	N/A	280
3	Soc. Studies	12	-1.111	558	515	-0.614	N/A	282
3	Soc. Studies	13	-0.990	564	572	-0.492	N/A	284
3	Soc. Studies	14	-0.874	569	631	-0.375	N/A	286
3	Soc. Studies	15	-0.762	575	713	-0.262	N/A	288
3	Soc. Studies	16	-0.654	580	762	-0.153	N/A	290
3	Soc. Studies	17	-0.549	585	850	-0.046	N/A	292
3	Soc. Studies	18	-0.445	590	867	0.058	N/A	294
3	Soc. Studies	19	-0.344	595	873	0.160	N/A	295
3	Soc. Studies	20	-0.244	600	897	0.261	N/A	297
3	Soc. Studies	21	-0.145	604	924	0.361	N/A	299
3	Soc. Studies	22	-0.047	609	934	0.461	N/A	300
3	Soc. Studies	23	0.052	614	981	0.560	N/A	302
3	Soc. Studies	24	0.150	618	939	0.660	N/A	304
3	Soc. Studies	25	0.249	623	1042	0.760	N/A	305
3	Soc. Studies	26	0.349	628	1047	0.860	N/A	307
3	Soc. Studies	27	0.450	633	1057	0.963	N/A	309
3	Soc. Studies	28	0.553	638	1003	1.066	N/A	310
3	Soc. Studies	29	0.658	643	1021	1.172	N/A	312
3	Soc. Studies	30	0.766	648	955	1.281	N/A	314
3	Soc. Studies	31	0.878	652	1014	1.394	N/A	316
3	Soc. Studies	32	0.993	659	983	1.510	N/A	318
3	Soc. Studies	33	1.114	665	935	1.631	N/A	320
3	Soc. Studies	34	1.241	671	962	1.759	N/A	322
3	Soc. Studies	35	1.375	677	967	1.894	N/A	324
3	Soc. Studies	36	1.518	684	936	2.038	N/A	326
3	Soc. Studies	37	1.674	691	835	2.194	N/A	329
3	Soc. Studies	38	1.844	699	733	2.365	N/A	332
3	Soc. Studies	39	2.035	709	668	2.557	N/A	335
3	Soc. Studies	40	2.253	719	520	2.776	N/A	339
3	Soc. Studies	41	2.512	731	410	3.035	N/A	343
3	Soc. Studies	42	2.834	747	301	3.358	N/A	348
3	Soc. Studies	43	3.275	768	194	3.799	N/A	356
3	Soc. Studies	44	4.002	802	80	4.527	N/A	364
3	Soc. Studies	45	5.230	861	25	5.755	N/A	364

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Soc. Studies	0	-5.304	350	0	-5.094	N/A	336
4	Soc. Studies	1	-4.079	414	1	-3.868	N/A	336
4	Soc. Studies	2	-3.357	452	0	-3.144	N/A	339
4	Soc. Studies	3	-2.922	475	0	-2.707	N/A	347
4	Soc. Studies	4	-2.604	491	5	-2.388	N/A	353
4	Soc. Studies	5	-2.351	504	10	-2.133	N/A	358
4	Soc. Studies	6	-2.138	516	14	-1.919	N/A	363
4	Soc. Studies	7	-1.952	525	46	-1.732	N/A	366
4	Soc. Studies	8	-1.787	534	106	-1.566	N/A	369
4	Soc. Studies	9	-1.637	542	213	-1.415	N/A	372
4	Soc. Studies	10	-1.499	549	343	-1.276	N/A	375
4	Soc. Studies	11	-1.370	556	490	-1.147	N/A	377
4	Soc. Studies	12	-1.249	562	793	-1.025	N/A	380
4	Soc. Studies	13	-1.135	568	938	-0.910	N/A	382
4	Soc. Studies	14	-1.025	574	1171	-0.800	N/A	384
4	Soc. Studies	15	-0.920	579	1367	-0.695	N/A	386
4	Soc. Studies	16	-0.819	585	1616	-0.593	N/A	388
4	Soc. Studies	17	-0.721	590	1755	-0.495	N/A	390
4	Soc. Studies	18	-0.625	595	1839	-0.399	N/A	392
4	Soc. Studies	19	-0.532	600	1860	-0.305	N/A	394
4	Soc. Studies	20	-0.440	604	1979	-0.214	N/A	395
4	Soc. Studies	21	-0.350	609	2045	-0.123	N/A	397
4	Soc. Studies	22	-0.261	614	2055	-0.034	N/A	399
4	Soc. Studies	23	-0.173	618	2027	0.054	N/A	400
4	Soc. Studies	24	-0.085	623	1959	0.142	N/A	402
4	Soc. Studies	25	0.002	627	1955	0.229	N/A	404
4	Soc. Studies	26	0.090	632	1921	0.317	N/A	406
4	Soc. Studies	27	0.178	636	1843	0.404	N/A	407
4	Soc. Studies	28	0.266	641	1808	0.492	N/A	409
4	Soc. Studies	29	0.355	646	1759	0.581	N/A	411
4	Soc. Studies	30	0.445	650	1720	0.671	N/A	412
4	Soc. Studies	31	0.536	655	1702	0.762	N/A	414
4	Soc. Studies	32	0.629	660	1574	0.855	N/A	416
4	Soc. Studies	33	0.724	665	1467	0.950	N/A	418
4	Soc. Studies	34	0.822	670	1428	1.047	N/A	420
4	Soc. Studies	35	0.923	675	1392	1.147	N/A	422
4	Soc. Studies	36	1.027	680	1383	1.252	N/A	424
4	Soc. Studies	37	1.136	686	1367	1.360	N/A	426
4	Soc. Studies	38	1.250	692	1268	1.473	N/A	428
4	Soc. Studies	39	1.370	698	1201	1.593	N/A	430
4	Soc. Studies	40	1.498	705	1150	1.721	N/A	433
4	Soc. Studies	41	1.636	712	1128	1.858	N/A	435
4	Soc. Studies	42	1.785	720	1031	2.006	N/A	438
4	Soc. Studies	43	1.949	728	884	2.170	N/A	441
4	Soc. Studies	44	2.134	738	812	2.354	N/A	445
4	Soc. Studies	45	2.346	749	670	2.566	N/A	449

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
4	Soc. Studies	46	2.599	762	465	2.818	N/A	454
4	Soc. Studies	47	2.916	778	309	3.134	N/A	460
4	Soc. Studies	48	3.350	801	175	3.568	N/A	464
4	Soc. Studies	49	4.072	838	51	4.289	N/A	464
4	Soc. Studies	50	5.295	900	14	5.512	N/A	464

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Soc. Studies	0	-5.382	320	2	-5.538	N/A	436
5	Soc. Studies	1	-4.155	385	4	-4.310	N/A	436
5	Soc. Studies	2	-3.427	423	0	-3.582	N/A	436
5	Soc. Studies	3	-2.988	446	3	-3.143	N/A	437
5	Soc. Studies	4	-2.665	463	3	-2.821	N/A	443
5	Soc. Studies	5	-2.408	477	8	-2.563	N/A	449
5	Soc. Studies	6	-2.190	488	19	-2.346	N/A	453
5	Soc. Studies	7	-2.001	498	27	-2.156	N/A	457
5	Soc. Studies	8	-1.832	507	57	-1.988	N/A	460
5	Soc. Studies	9	-1.678	515	93	-1.834	N/A	463
5	Soc. Studies	10	-1.536	523	134	-1.692	N/A	466
5	Soc. Studies	11	-1.404	530	212	-1.561	N/A	469
5	Soc. Studies	12	-1.279	536	288	-1.436	N/A	471
5	Soc. Studies	13	-1.161	543	364	-1.319	N/A	474
5	Soc. Studies	14	-1.049	548	458	-1.206	N/A	476
5	Soc. Studies	15	-0.941	554	482	-1.099	N/A	478
5	Soc. Studies	16	-0.836	560	534	-0.994	N/A	480
5	Soc. Studies	17	-0.735	565	627	-0.893	N/A	482
5	Soc. Studies	18	-0.636	570	660	-0.795	N/A	484
5	Soc. Studies	19	-0.540	575	730	-0.699	N/A	486
5	Soc. Studies	20	-0.446	580	697	-0.605	N/A	488
5	Soc. Studies	21	-0.353	585	763	-0.512	N/A	490
5	Soc. Studies	22	-0.261	590	809	-0.420	N/A	492
5	Soc. Studies	23	-0.170	595	854	-0.330	N/A	494
5	Soc. Studies	24	-0.080	600	829	-0.239	N/A	495
5	Soc. Studies	25	0.010	604	868	-0.150	N/A	497
5	Soc. Studies	26	0.100	609	913	-0.060	N/A	499
5	Soc. Studies	27	0.190	614	884	0.030	N/A	501
5	Soc. Studies	28	0.280	618	945	0.120	N/A	503
5	Soc. Studies	29	0.372	623	942	0.212	N/A	504
5	Soc. Studies	30	0.464	628	955	0.304	N/A	506
5	Soc. Studies	31	0.557	633	953	0.397	N/A	508
5	Soc. Studies	32	0.652	638	1009	0.492	N/A	510
5	Soc. Studies	33	0.750	643	951	0.589	N/A	512
5	Soc. Studies	34	0.849	648	984	0.689	N/A	514
5	Soc. Studies	35	0.952	654	869	0.792	N/A	516
5	Soc. Studies	36	1.058	659	951	0.898	N/A	518
5	Soc. Studies	37	1.168	665	942	1.008	N/A	521
5	Soc. Studies	38	1.284	671	885	1.124	N/A	523
5	Soc. Studies	39	1.406	678	840	1.246	N/A	525
5	Soc. Studies	40	1.535	685	743	1.375	N/A	528
5	Soc. Studies	41	1.674	692	686	1.514	N/A	531
5	Soc. Studies	42	1.824	700	593	1.665	N/A	534
5	Soc. Studies	43	1.990	709	536	1.830	N/A	537
5	Soc. Studies	44	2.175	718	408	2.016	N/A	541
5	Soc. Studies	45	2.389	730	277	2.229	N/A	545

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
5	Soc. Studies	46	2.642	743	196	2.483	N/A	550
5	Soc. Studies	47	2.960	760	98	2.800	N/A	557
5	Soc. Studies	48	3.394	783	51	3.235	N/A	564
5	Soc. Studies	49	4.116	821	18	3.957	N/A	564
5	Soc. Studies	50	5.340	885	2	5.181	N/A	564

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Soc. Studies	0	-5.365	332	2	-5.111	N/A	536
6	Soc. Studies	1	-4.144	399	0	-3.890	N/A	536
6	Soc. Studies	2	-3.426	439	4	-3.172	N/A	536
6	Soc. Studies	3	-2.995	463	4	-2.742	N/A	542
6	Soc. Studies	4	-2.681	480	2	-2.429	N/A	549
6	Soc. Studies	5	-2.432	494	0	-2.180	N/A	554
6	Soc. Studies	6	-2.223	505	5	-1.971	N/A	559
6	Soc. Studies	7	-2.042	515	14	-1.791	N/A	562
6	Soc. Studies	8	-1.882	524	34	-1.630	N/A	566
6	Soc. Studies	9	-1.736	532	74	-1.485	N/A	569
6	Soc. Studies	10	-1.603	540	114	-1.352	N/A	572
6	Soc. Studies	11	-1.479	546	184	-1.228	N/A	575
6	Soc. Studies	12	-1.363	553	241	-1.113	N/A	577
6	Soc. Studies	13	-1.254	559	320	-1.003	N/A	580
6	Soc. Studies	14	-1.150	565	416	-0.899	N/A	582
6	Soc. Studies	15	-1.050	570	480	-0.800	N/A	584
6	Soc. Studies	16	-0.954	575	563	-0.705	N/A	586
6	Soc. Studies	17	-0.862	580	585	-0.612	N/A	588
6	Soc. Studies	18	-0.772	585	690	-0.523	N/A	590
6	Soc. Studies	19	-0.685	590	763	-0.436	N/A	592
6	Soc. Studies	20	-0.600	595	761	-0.351	N/A	594
6	Soc. Studies	21	-0.517	600	800	-0.267	N/A	596
6	Soc. Studies	22	-0.435	604	819	-0.186	N/A	597
6	Soc. Studies	23	-0.354	608	860	-0.105	N/A	599
6	Soc. Studies	24	-0.274	613	909	-0.025	N/A	601
6	Soc. Studies	25	-0.195	617	884	0.054	N/A	603
6	Soc. Studies	26	-0.116	622	901	0.133	N/A	604
6	Soc. Studies	27	-0.038	626	857	0.211	N/A	606
6	Soc. Studies	28	0.041	630	919	0.289	N/A	608
6	Soc. Studies	29	0.119	635	879	0.368	N/A	609
6	Soc. Studies	30	0.198	639	930	0.446	N/A	611
6	Soc. Studies	31	0.277	643	828	0.525	N/A	613
6	Soc. Studies	32	0.356	648	884	0.605	N/A	615
6	Soc. Studies	33	0.437	652	854	0.685	N/A	616
6	Soc. Studies	34	0.519	657	763	0.767	N/A	618
6	Soc. Studies	35	0.602	661	815	0.850	N/A	620
6	Soc. Studies	36	0.687	666	763	0.935	N/A	622
6	Soc. Studies	37	0.774	670	759	1.022	N/A	624
6	Soc. Studies	38	0.863	676	716	1.111	N/A	626
6	Soc. Studies	39	0.955	681	630	1.203	N/A	628
6	Soc. Studies	40	1.051	686	630	1.299	N/A	630
6	Soc. Studies	41	1.150	692	603	1.398	N/A	632
6	Soc. Studies	42	1.254	697	564	1.501	N/A	634
6	Soc. Studies	43	1.363	703	496	1.610	N/A	637
6	Soc. Studies	44	1.478	710	468	1.726	N/A	639
6	Soc. Studies	45	1.602	716	417	1.849	N/A	642

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
6	Soc. Studies	46	1.735	724	380	1.982	N/A	645
6	Soc. Studies	47	1.880	732	362	2.127	N/A	648
6	Soc. Studies	48	2.040	741	270	2.287	N/A	651
6	Soc. Studies	49	2.221	751	233	2.467	N/A	655
6	Soc. Studies	50	2.429	762	157	2.675	N/A	660
6	Soc. Studies	51	2.678	776	123	2.923	N/A	664
6	Soc. Studies	52	2.991	793	92	3.236	N/A	664
6	Soc. Studies	53	3.422	817	44	3.666	N/A	664
6	Soc. Studies	54	4.140	857	21	4.384	N/A	664
6	Soc. Studies	55	5.361	900	5	5.605	N/A	664

2009 PASS Raw Score to PACT Scale Score Conversion Table

Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Soc. Studies	0	-5.429	334	0	-5.697	N/A	636
7	Soc. Studies	1	-4.209	395	1	-4.477	N/A	636
7	Soc. Studies	2	-3.493	431	0	-3.761	N/A	636
7	Soc. Studies	3	-3.065	453	0	-3.332	N/A	636
7	Soc. Studies	4	-2.754	468	0	-3.020	N/A	639
7	Soc. Studies	5	-2.507	481	1	-2.773	N/A	644
7	Soc. Studies	6	-2.301	491	6	-2.567	N/A	648
7	Soc. Studies	7	-2.123	500	18	-2.389	N/A	652
7	Soc. Studies	8	-1.965	508	39	-2.231	N/A	656
7	Soc. Studies	9	-1.823	515	101	-2.088	N/A	659
7	Soc. Studies	10	-1.693	521	150	-1.958	N/A	662
7	Soc. Studies	11	-1.572	528	267	-1.837	N/A	664
7	Soc. Studies	12	-1.460	533	402	-1.724	N/A	667
7	Soc. Studies	13	-1.354	538	591	-1.618	N/A	669
7	Soc. Studies	14	-1.253	543	774	-1.517	N/A	671
7	Soc. Studies	15	-1.158	548	969	-1.422	N/A	673
7	Soc. Studies	16	-1.066	553	1219	-1.330	N/A	675
7	Soc. Studies	17	-0.978	557	1365	-1.241	N/A	677
7	Soc. Studies	18	-0.893	562	1389	-1.156	N/A	679
7	Soc. Studies	19	-0.810	566	1463	-1.073	N/A	681
7	Soc. Studies	20	-0.730	570	1454	-0.993	N/A	683
7	Soc. Studies	21	-0.651	574	1502	-0.914	N/A	685
7	Soc. Studies	22	-0.574	578	1485	-0.837	N/A	686
7	Soc. Studies	23	-0.499	581	1508	-0.761	N/A	688
7	Soc. Studies	24	-0.425	585	1431	-0.687	N/A	690
7	Soc. Studies	25	-0.352	589	1455	-0.613	N/A	691
7	Soc. Studies	26	-0.279	592	1425	-0.541	N/A	693
7	Soc. Studies	27	-0.208	596	1359	-0.469	N/A	694
7	Soc. Studies	28	-0.136	600	1253	-0.397	N/A	696
7	Soc. Studies	29	-0.066	603	1274	-0.326	N/A	697
7	Soc. Studies	30	0.005	607	1392	-0.255	N/A	699
7	Soc. Studies	31	0.076	610	1324	-0.184	N/A	700
7	Soc. Studies	32	0.147	614	1358	-0.113	N/A	702
7	Soc. Studies	33	0.218	617	1257	-0.042	N/A	704
7	Soc. Studies	34	0.289	621	1320	0.030	N/A	705
7	Soc. Studies	35	0.361	624	1297	0.102	N/A	707
7	Soc. Studies	36	0.434	628	1247	0.175	N/A	708
7	Soc. Studies	37	0.508	632	1211	0.249	N/A	710
7	Soc. Studies	38	0.583	636	1223	0.324	N/A	712
7	Soc. Studies	39	0.659	639	1259	0.401	N/A	713
7	Soc. Studies	40	0.737	643	1310	0.479	N/A	715
7	Soc. Studies	41	0.817	647	1190	0.559	N/A	717
7	Soc. Studies	42	0.898	651	1196	0.641	N/A	719
7	Soc. Studies	43	0.983	656	1185	0.726	N/A	720
7	Soc. Studies	44	1.070	660	1142	0.814	N/A	722
7	Soc. Studies	45	1.161	665	1064	0.905	N/A	724

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Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
7	Soc. Studies	46	1.255	669	1033	1.000	N/A	726
7	Soc. Studies	47	1.354	674	1041	1.099	N/A	728
7	Soc. Studies	48	1.459	680	955	1.205	N/A	731
7	Soc. Studies	49	1.570	685	913	1.316	N/A	733
7	Soc. Studies	50	1.690	691	877	1.436	N/A	736
7	Soc. Studies	51	1.818	698	767	1.565	N/A	739
7	Soc. Studies	52	1.959	705	659	1.706	N/A	742
7	Soc. Studies	53	2.115	713	595	1.863	N/A	745
7	Soc. Studies	54	2.291	721	475	2.040	N/A	749
7	Soc. Studies	55	2.496	732	424	2.245	N/A	753
7	Soc. Studies	56	2.740	744	337	2.490	N/A	759
7	Soc. Studies	57	3.049	759	247	2.799	N/A	764
7	Soc. Studies	58	3.476	781	141	3.226	N/A	764
7	Soc. Studies	59	4.189	816	69	3.941	N/A	764
7	Soc. Studies	60	5.407	877	16	5.160	N/A	764

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Grade	Subject	PASS				PACT		
		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Soc. Studies	0	-5.479	300	3	-5.048	N/A	736
8	Soc. Studies	1	-4.258	362	5	-3.827	N/A	736
8	Soc. Studies	2	-3.540	406	2	-3.110	N/A	742
8	Soc. Studies	3	-3.110	432	2	-2.680	N/A	750
8	Soc. Studies	4	-2.797	451	1	-2.367	N/A	755
8	Soc. Studies	5	-2.549	466	2	-2.119	N/A	759
8	Soc. Studies	6	-2.341	479	4	-1.912	N/A	762
8	Soc. Studies	7	-2.161	490	5	-1.732	N/A	765
8	Soc. Studies	8	-2.001	499	9	-1.573	N/A	768
8	Soc. Studies	9	-1.857	508	35	-1.429	N/A	771
8	Soc. Studies	10	-1.725	516	64	-1.297	N/A	773
8	Soc. Studies	11	-1.603	524	104	-1.175	N/A	775
8	Soc. Studies	12	-1.489	531	175	-1.061	N/A	777
8	Soc. Studies	13	-1.381	537	259	-0.954	N/A	778
8	Soc. Studies	14	-1.279	543	333	-0.852	N/A	780
8	Soc. Studies	15	-1.182	549	465	-0.755	N/A	782
8	Soc. Studies	16	-1.088	555	545	-0.662	N/A	783
8	Soc. Studies	17	-0.998	561	612	-0.572	N/A	785
8	Soc. Studies	18	-0.911	566	668	-0.485	N/A	786
8	Soc. Studies	19	-0.827	571	684	-0.401	N/A	788
8	Soc. Studies	20	-0.745	576	741	-0.319	N/A	789
8	Soc. Studies	21	-0.665	581	735	-0.239	N/A	790
8	Soc. Studies	22	-0.586	586	807	-0.161	N/A	792
8	Soc. Studies	23	-0.509	590	779	-0.084	N/A	793
8	Soc. Studies	24	-0.433	595	791	-0.008	N/A	794
8	Soc. Studies	25	-0.358	600	789	0.067	N/A	796
8	Soc. Studies	26	-0.284	604	759	0.141	N/A	797
8	Soc. Studies	27	-0.211	608	801	0.214	N/A	798
8	Soc. Studies	28	-0.138	613	818	0.286	N/A	799
8	Soc. Studies	29	-0.066	617	830	0.359	N/A	800
8	Soc. Studies	30	0.007	622	779	0.431	N/A	802
8	Soc. Studies	31	0.079	626	813	0.503	N/A	803
8	Soc. Studies	32	0.151	631	825	0.575	N/A	804
8	Soc. Studies	33	0.224	635	813	0.648	N/A	805
8	Soc. Studies	34	0.297	639	817	0.721	N/A	806
8	Soc. Studies	35	0.370	644	823	0.795	N/A	808
8	Soc. Studies	36	0.445	648	777	0.869	N/A	809
8	Soc. Studies	37	0.520	653	816	0.944	N/A	810
8	Soc. Studies	38	0.596	658	772	1.021	N/A	811
8	Soc. Studies	39	0.674	662	733	1.098	N/A	813
8	Soc. Studies	40	0.754	667	741	1.178	N/A	814
8	Soc. Studies	41	0.835	672	681	1.259	N/A	815
8	Soc. Studies	42	0.918	677	638	1.342	N/A	817
8	Soc. Studies	43	1.004	683	626	1.428	N/A	818
8	Soc. Studies	44	1.093	688	629	1.517	N/A	820
8	Soc. Studies	45	1.185	694	578	1.609	N/A	821

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		Raw Score	Rasch Ability	Scale Score	Frequency	Rasch Ability	3-PL Ability	Scale Score
8	Soc. Studies	46	1.281	700	471	1.705	N/A	823
8	Soc. Studies	47	1.382	706	392	1.806	N/A	825
8	Soc. Studies	48	1.488	712	371	1.913	N/A	826
8	Soc. Studies	49	1.600	719	281	2.025	N/A	828
8	Soc. Studies	50	1.721	726	213	2.146	N/A	830
8	Soc. Studies	51	1.851	734	154	2.276	N/A	833
8	Soc. Studies	52	1.993	743	138	2.419	N/A	835
8	Soc. Studies	53	2.151	753	92	2.577	N/A	838
8	Soc. Studies	54	2.329	764	40	2.755	N/A	841
8	Soc. Studies	55	2.534	776	33	2.961	N/A	844
8	Soc. Studies	56	2.780	791	16	3.207	N/A	848
8	Soc. Studies	57	3.091	810	13	3.518	N/A	853
8	Soc. Studies	58	3.519	836	2	3.946	N/A	860
8	Soc. Studies	59	4.234	880	0	4.661	N/A	864
8	Soc. Studies	60	5.453	900	1	5.881	N/A	864